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Tables of Eigenvalues of the Wave Equation in Oblate Spheroidal Coordinates

S. HANISH AND B. KING

Transducer Branch
Acoustics Division

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ABSTRACT

The wave equation in prolate spheroidal coordinates was separated into radial and angle functions. The differential equation satisfied by the angle functions was written in the form of an eigenvalue problem, that is, as a linear operator operating on eigenfunctions to yield the same eigenfunctions multiplied by corresponding eigenvalues. The eigenvalues were numerically calculated by use of Galerkin's method. This method reduces to the evaluation of the characteristic roots of a large matrix. An 80 by 80 matrix is chosen and a detailed calculation on a high-speed computer leads to a tabulation. The table of prolate eigenvalues published here has the range $m = 0, 1, 2; l = m (1) m + 49; h = 0.1 (0.1) 0.9, 1.0 (0.2) 8.0, 10.0, 20.0 (20.0) 100.0$. The precision is 21 significant figures.

PROBLEM STATUS

This is an interim report on one phase of the problem; work on other phases continues.

AUTHORIZATION

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TABLES OF EIGENVALUES OF THE WAVE EQUATION
IN PROLATE SPHEROIDAL COORDINATES

INTRODUCTION

In the solution of Helmholtz's wave equation $(\nabla^2 + k^2)\psi = 0$ by separation of variables in spheroidal coordinates (ξ, η, φ) the following equations occur:

$$\frac{d}{d\xi} \left[(\xi^2 - 1) \frac{dR}{d\xi} \right] - \left[A - h^2 \xi^2 + \frac{m^2}{\xi^2 - 1} \right] R = 0 , \quad 1 < \xi < \infty , \quad (1)$$

$$\frac{d}{d\eta} \left[(1 - \eta^2) \frac{dS}{d\eta} \right] + \left[A - h^2 \eta^2 - \frac{m^2}{1 - \eta^2} \right] S = 0 , \quad -1 \leq \eta \leq 1 , \quad (2)$$

$$\frac{d^2\Phi}{d\varphi^2} + m^2\Phi = 0 , \quad 0 \leq \varphi \leq 2\pi . \quad (3)$$

Here A is a separation constant, $h = kd/2$, $k = c/v$, d is the interfocal distance of the spheroid, R is a radial function, S is an angle function, and Φ is a rotational function. Equations (1) and (2) have the form of the Liouville equation

$$[p(z)\psi']' + [q(z) + \lambda r(z)]\psi = 0 , \quad (4)$$

with the identities

$$p(z) = 1 - \eta^2 \quad \text{or} \quad \xi^2 - 1$$

$$q(z) = -h^2 \eta^2 - \frac{m^2}{1 - \eta^2} \quad \text{or} \quad -h^2 \xi^2 + \frac{m^2}{\xi^2 - 1}$$

$$r(z) = 1$$

and

$$\lambda = A .$$

Since Eqs. (1) and (2) are identical, except for range of the variables η and ξ , we consider only Eq. (2). Here we seek the real eigenvalues $A = A_{m,l}$ ($m, m+1, \dots$) for which the solutions of Eq. (2) over a range are nontrivial and nonsingular. The singularities of Eq. (4) are known to occur at $p(z) = 0$, i.e., at $\eta = \pm 1$. The range of interest is thus $-1 \leq \eta \leq +1$, or parametrically $\eta = \cos \theta$, $0 \leq \theta \leq \pi$. The boundary conditions are of the conventional type, $a_1\psi + a_2\psi' = 0$ at $\eta = 1$, and $b_1\psi + b_2\psi' = 0$ at $\eta = -1$. For these boundary conditions there will be a lowest eigenvalue A_{mm} which will be smaller in magnitude than any other $A_{m,l}$, and all other eigenvalues can be ordered to form a monotonically increasing sequence $A_{m(l+1)} > A_{ml}$. To find the eigenvalue $A_{m,l}$ we use the method of Galerkin (1); i.e., we assume that the corresponding eigenfunction can be expanded in a finite orthogonal series $\{\phi_k(\eta)\}$ over the range $-1 \leq \eta \leq 1$ and write

$$\psi_s = \sum_{r=0}^{k-1} C_{sr} \phi_r , \quad s = m, m+1, \dots \quad (5)$$

in which ϕ_r is a solution of Eq. (4) and associated homogeneous boundary conditions in the range $-1 \leq \eta \leq +1$ with known eigenvalue λ_r . Substituting Eq. (5) into Eq. (2), multiplying by ϕ_q and integrating over the range according to Galerkin's procedure, one gets

$$\sum_{r=0}^k C_{sr} \left[\int_{-1}^{+1} (1-\eta^2) \phi_r'' \phi_q \, d\eta + \int_{-1}^{+1} (-2\eta) \phi_r' \phi_q \, d\eta \right. \\ \left. + \int_{-1}^{+1} \left(-h^2 \eta^2 - \frac{m^2}{1-\eta^2} + \lambda_s \right) \phi_r \phi_q \, d\eta \right] = 0 . \quad (6)$$

An appropriate choice of ϕ_r for the range of η is the associated Legendre function $P_{m+r}^m(\eta)$ which satisfies Eq. (2) for the condition $h=0$. This condition requires that

$$(1-\eta^2) P_{m+r}^{m''} = 2\eta P_{m+r}^{m'} - \left[(m+r)(m+r+1) - \frac{m^2}{1-\eta^2} \right] P_{m+r}^m . \quad (7)$$

Substituting $\phi_r = P_{m+r}^m$ and $\phi_q = P_q^m$ in Eq. (6) and using Eq. (7), it is easily seen that Eq. (6) can be written in the form

$$\sum_{r=0}^k C_{sr} L_{m+r, q} = 0 , \quad (8a)$$

where

$$L_{m+r, q} = \left[(\lambda_s - (m+r)(m+r+1)) \int_{-1}^{+1} P_{m+r}^m(\eta) P_q^m(\eta) \, d\eta - h^2 \int_{-1}^{+1} \eta^2 P_{m+r}^m P_q^m \, d\eta \right] = 0 . \quad (8b)$$

The quantity L can be regarded as a large (though finite) matrix having elements $L_{m+r, q}$ with eigenvalues λ_s . In this light, Eq. (8a) is an eigenvalue problem and the entities C_{sr} are the components of an eigenvector corresponding to each eigenvalue λ_s . Now let $m+r=p$ for convenience and write the normalization and recursion relations of P_p^m in the forms

$$\int_{-1}^{+1} \tilde{P}_p^m \tilde{P}_s^m \, d\eta = \begin{cases} 1 & p=s \\ 0 & p \neq s \end{cases} , \quad (9a)$$

$$\tilde{P}_p^m = \frac{P_p^m}{\sqrt{N(p, m)}} , \quad N(p, m) = \frac{2}{2p+1} \frac{(p+m)!}{(p-m)!} , \quad (9b)$$

$$(2p+1) \eta \tilde{P}_p^m = (p-m+1) \tilde{P}_{p+1}^m + (p+m) \tilde{P}_{p-1}^m . \quad (9c)$$

In normalized form the last equation reads

$$\eta \tilde{P}_p^m = A(p) \tilde{P}_{p+1}^m + B(p) \tilde{P}_{p-1}^m , \quad (9d)$$

where

$$A(p) = \sqrt{\frac{N(p+1, m)}{N(p, m)}} \frac{(p-m+1)}{(2p+1)} , \quad B(p) = \frac{p+m}{2p+1} \sqrt{\frac{N(p-1, m)}{N(p, m)}} . \quad (9e)$$

The products $A(q)B(p)$ may have the following two forms depending on the procedure of normalization:

$$A(q)B(p) = \frac{(q-m+1)}{(2q+1)} \frac{(p+m)}{(2p+1)} \frac{1}{N(p,m)} \sqrt{N(q+1,m) N(p-1,m)} \quad (9f)$$

or

$$A(q)B(p) = \frac{(q-m+1)}{(2q+1)} \frac{(p+m)}{(2p+1)} \sqrt{\frac{N(q+1,m) N(p-1,m)}{N(q,m) N(p,m)}}. \quad (9g)$$

Equation (9f) is designated as the nonnormalized form, and Eq. (9g) is the normalized form.

Expanding Eq. (8b) by use of Eq. (9d) one obtains further

$$L_{m+r,s,q} = L_{p,q} = 1 + 2 + 3 + 4 + 5 ,$$

where

$$1 = [\lambda_s - (p)(p+1)] \int_{-1}^{+1} \tilde{P}_p^m \tilde{P}_q^m d\eta \quad (10a)$$

$$2 = -h^2 B(q) B(p) \int_{-1}^{+1} \tilde{P}_{q-1}^m \tilde{P}_{p-1}^m d\eta \quad (10b)$$

$$3 = -h^2 A(p) A(q) \int_{-1}^{+1} \tilde{P}_{q+1}^m \tilde{P}_{p+1}^m d\eta \quad (10c)$$

$$4 = -h^2 A(q) B(p) \int_{-1}^{+1} \tilde{P}_{q+1}^m \tilde{P}_{p-1}^m d\eta \quad (10d)$$

$$5 = -h^2 A(p) B(q) \int_{-1}^{+1} \tilde{P}_{q-1}^m \tilde{P}_{p+1}^m d\eta . \quad (10e)$$

It is seen that any three consecutive terms of Eqs. (8a) satisfy the recursion relation

$$\begin{aligned} C_{s,p-m-2} & \left[(-h^2) \frac{(p-1-m)(p-m)}{(2p-3)(2p-1)} \right] + C_{s,p-m} \left\{ \lambda_s - p(p+1) \right. \\ & \left. - h^2 \left[\frac{(p+1-m)(p+1+m)}{(2p+1)(2p+3)} + \frac{(p+m)(p-m)}{(2p+1)(2p-1)} \right] \right\} \\ & + C_{s,p-m+2} \left[(-h^2) \frac{(p+2+m)(p+1+m)}{(2p+5)(2p+3)} \right] = 0 . \end{aligned} \quad (11)$$

This is the nonnormalized recursion relation between the constants $C_{s,r}$.

We return to Eq. (9d), which is in the form

$$\eta \tilde{P}_p^m = \sqrt{\frac{(p-m+1)(p+1+m)}{(2p+1)(2p+3)}} \tilde{P}_{p+1}^m + \sqrt{\frac{(p+m)(p-m)}{(2p-1)(2p+1)}} \tilde{P}_{p-1}^m.$$

Substituting this formula into Eq. (8b) one obtains

$$\sum_{p=m}^k C_{c,p-m} L_{p,q} = \sum_{p=m}^k C_{s,p-m} \left\{ (\lambda_s - p(p+1)) \int_{-1}^{+1} \tilde{P}_p \tilde{P}_q d\eta - h^2 \int_{-1}^{+1} [A(p)A(q) P_{p+1}^m P_{q+1}^m] d\eta \right. \\ \left. + [A(p)B(q) P_{p+1}^m P_{q-1}^m] + [B(p)A(q) P_{p-1} P_{q+1}] + [A(q)B(q) P_{p-1}^m P_{q-1}^m] \right\} = 0.$$

Using the properties of normalization shown in Eq. (9g) this reduces to the recursion relation

$$C_{s,p-m} \left\{ \lambda_s - p(p+1) - h^2 \left[\frac{(p-m+1)(p+1+m)}{(2p+1)(2p+3)} + \frac{(p+m)(p-m)}{(2p-1)(2p+1)} \right] \right. \\ \left. - h^2 \left[\sqrt{\frac{(p+m)(p-m)(p-m-1)(p-1-m)}{(2p-1)(2p+1)(2p-3)(2p-1)}} \right] C_{s,p-m-2} \right. \\ \left. - h^2 \left[\sqrt{\frac{(p-m+1)(p+1+m)(p+2+m)(p+2-m)}{(2p+1)(2p+3)(2p+3)(2p+5)}} \right] C_{s,p-m+2} \right\} = 0. \quad (12)$$

This is the normalized form of the recursion relation between the constants $C_{s,r}$.

In the computation of eigenvalues it is advantageous to use a matrix formulation with normalized elements as given by Eq. (12). However, in the determination of eigenvectors whose components are the constants $C_{s,r}$ it is convenient to obtain these in unnormalized form by use of Eq. (11) with appropriate choices of λ_s and then to normalize them to suit a particular requirement. In this report the following normalization for the components of the eigenvectors is used:

$$\sum_{r=0}^{\infty} C_{s,r} \frac{(r+2m)!}{r!} = \frac{(s+m)!}{(s-m)!}. \quad (13)$$

This choice of normalization (see Ref. 2) is arbitrary but very suitable to numerical computation.

COMPUTATION PROCEDURE

All elements in matrix L of Eq. (8b) are real. From Eqs. (11) and (12) it is seen that the subscripted elements $s=p$, $s=p+2$, and $s=p-2$ are non zero, while all other elements of the matrix vanish. Furthermore, one notes that the matrix is symmetrical; i.e., $C_{s,s} = C_{s,s}$. Based on these observations, therefore, we are required to find the eigenvalues λ_s of a real symmetric matrix. To assist in the numerical computation we have used the standard IBM Share-Distributed 704-709 Fortran program 664

by Burton S. Garbow of Argonne National Laboratory (CO-OP ID F4 UCSD 1 EIGEN). This subroutine finds all scalar solutions to the matrix equation $Ax = \lambda x$, where A is a real symmetric matrix. Although the eigenvalues of the separated Helmholtz equation are infinite in number, finite sized matrices yield excellent and well converged eigenvalues provided the selected partition of the infinite matrix is "large enough". In our application we use an 80 by 80 matrix to compute 50 eigenvalues in double precision (21 significant digits).

METHOD OF CHECKING

In Eq. (11) we designate the ratio $C_{s,r}/C_{s,r+2}$ by the symbol γ_r^m . In the limit $r \rightarrow \infty$ we require that γ_r^m vanish. Changing r to $r+2$ so that the ratio of constants is γ_{r+2}^m

$$\gamma_{r+2}^m = C_{s,r+2}/C_{s,r} .$$

one sees by the recursion relation Eq. (11) that γ_{r+2}^m can be written as an infinite continued fraction $[\gamma_{r+2}^m]_\infty$ by the permutation of subscripts, i.e., increasing subscripts so that the ratios read $C_{s,r+4}/C_{s,r+2}$, $C_{s,r+6}/C_{s,r+4}$, etc. Another set of permutations is the set of decreasing subscripts $C_{s,r}/C_{s,r-2}$, $C_{s,r-2}/C_{s,r-4}$, etc. This latter set is limited by the requirement that $C_{s,r} = 0$ if $r < 0$. We can thus write γ_{r+2}^m as a finite continued fraction $[\gamma_{r+2}^m]_n$, using this latter set, i.e., the decreasing subscript set. Clearly one requires that

$$[\gamma_{r+2}^m]_\infty - [\gamma_{r+2}^m]_n \cdot U(\lambda_s) = 0 . \quad (14)$$

This is a transcendental equation in the unknown λ whose roots are the eigenvalues λ_s . A skillful procedure for finding these roots has been devised by Bouwkamp (3). He takes the first variation of $U(\lambda)$ due to a variation $\delta\lambda$, devises an equation for $\delta\lambda$ in terms of the γ_r^m ratios, and by iteration of Eq. (14) using $\lambda + \delta\lambda_1 + \delta\lambda_2$, etc., finally causes λ to converge to the true value λ_s . This method however requires a good first guess on λ_s , which can then be used as a basis for iteration. In the event that this guess is poor, the method yields a different eigenvalue λ_{s+n} , $n = 2, 4, 6, \dots$. Comparison of the matrix method noted above with the method of Bouwkamp shows that the matrix method agrees with Bouwkamp's method to all 21 significant digits for $h < 10$. For $h > 20$ Bouwkamp's method yields eigenvalues but not in a monotone series. Because these eigenvalues are sometimes identical for different m , t , h , it is seen that Bouwkamp's method fails for large h . The failure is attributable to wrongly chosen starting values. To overcome this difficulty an 80 by 80 matrix is used to obtain eigenvalues which provide starting values for Bouwkamp's method. This procedure of combining the two methods yields 50 correct eigenvalues up to $h = 80$. For $h = 100$ the same method yields approximately 30 eigenvalues with 21 significant digits. This limit in available eigenvalues with required accuracy is due to limitation of the Share program.

RANGE OF TABULATION

The range covered by these eigenvalue tables is as follows:

$$m = 0, 1, 2$$

$$t = m(1) m + 49$$

$$h = 0.1 (0.1) 0.9, 1.0 (0.2) 8.0, 10.0, 20.0, 40.0, 60.0, 80.0, 100.0$$

The accuracy is considered to be 21 significant figures.

COMPARISON WITH OTHER PUBLICATIONS

The existing literature contains the following ranges of tabulation of prolate spheroidal eigenvalues.

Chang and Yeh (4):

$$m = 0 (1) 9, \ell = m (1) 9, h = 0.1 (0.1) 10 (1.0) 100$$

Accuracy = 12 significant figures.

Stukey and Layton (5):

$$m = 0 (1) 9, \ell = m (1) m + 9, h = 0.25 (0.25) 10.0 (1.0) 20.0$$

Accuracy = 11 significant figures.

The number of values of ℓ (i.e., the number of eigenfunctions for fixed m) in these latter collections is too limited to allow complete field calculations based on orthogonal expansions in eigenfunctions. For example, when $m = 0$, the Chang and Yeh tables contain ten values of ℓ . Since in many physical problems only even or odd integers are permitted, this number has been found to be too small to permit convergence, except for very small values of h . The NRL tables in contrast provide 50 values of ℓ for h as large as 80.

The increase in accuracy (from 12 to 21 figures) in these NRL tables is motivated by a desire to permit accurate determination of the components of the eigenvectors (that is the expansion constants $d_n(h, m, \ell)$), by a three-term recursion formula (6). Low accuracy of the eigenvalue results in poor d_n constants. By increasing the accuracy of the eigenvalue to 21 places, we are able to obtain well over 100 d_n constants having accuracy comparable to that of the eigenvalue. Accurate determination of functions involved in field calculations is not possible without this capability.

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TABLES OF EIGENVALUES OF THE
EXTERIOR ACOUSTIC RADIATION PROBLEM
FOR PROLATE SPHEROIDAL COORDINATES

Range of Parameters

$h = 0.1$ (0.1) 1.0, 1.2 (0.2) 8.0, 10, 20 (20.0) 100.0

$m = 0, 1, 2$

$\ell = m (1) m + 49$

PROBLATE EIGENVALUES H = 0.10

M = 0

L	EIGENVALUE	M = 1	EIGENVALUE	M = 2
0	3.33185232229902831206+003	1	2.00199954297902658333+000	2
1	2.0029993142277878097+000	2	6.0028532557022463209+000	3
2	6.0052391097705148434+000	3	1.200466680302307397+001	4
3	1.20051140586316082+001	4	2.00488531381209115+001	5
4	2.0005065112575326904+001	5	3.0004871883817234612+001	6
5	3.00050428480352646030+001	6	4.2004909157895927610+001	7
6	4.20050303817750071982+001	7	5.60049321784437266184+001	8
7	5.6005022682625/604228+001	8	7.200494740941897571+001	9
8	7.2005017588666222927+001	9	9.0004958016395122034+001	10
9	9.00050140412266763610+001	10	1.10004965702456893302+002	11
10	1.100050147056342601+002	11	1.300049714519553967+002	12
11	1.5200500954756/81053+002	12	1.56004975864916927541+002	13
12	1.5600500807485/204501+002	13	1.80004979327152421189+002	14
13	1.82005006911532846648+002	14	2.1000498203934247454+002	15
14	2.10005005237802073613+002	15	2.400049843788128142+002	16
15	2.40005005237802073613+002	16	2.7000498618644316001+002	17
16	2.70005004613980140781+002	17	3.00004987725073118139+002	18
17	3.0600500410529447453+002	18	3.42004989020029137949+002	19
18	3.4200500367201807431+002	19	3.800049901206754232+002	20
19	3.80005003303251/21812+002	20	4.20004991062829496788+002	21
20	4.2000500298869+021+035+002	21	4.62004995935603171474+002	22
21	4.620050027162+435275+002	22	5.060049918766232607+002	23
22	5.060050246072617766+002	23	5.52004965991832163744+002	24
23	5.5200500227358146472+002	24	6.00004998725091566195+002	25
24	6.00005002091687549+/-002	25	6.500049906288449E621+002	26
25	6.2000502019301228829+4+002	26	7.020049732663445670+002	27
26	7.0200500179800193400+002	27	7.56004975177799791366+002	28
27	7.260050016552/05474+002	28	8.12004995013869674276+002	29
28	8.1200500154466120232+002	29	8.7000498743318270657+002	30
29	8.70005001441+/-226264+002	30	9.300049782571961175+002	31
30	9.30005001348535211073+002	31	9.9200498108757316320+002	32
31	9.920050012641314191+0+002	32	1.0560049822345689834+003	33
32	1.0560050012641314762024+003	33	1.12200498328032311984+003	34
33	1.12200500117518U2927+03	33	1.19004984236338760+003	35
34	1.1220050011618U2+03	34	1.26004985637250126+003	36
35	1.190005001054156443+003	35	1.3320049859178070470+003	37
36	1.260005000962138973U03	36	1.4060498665936633862+003	38
37	1.332005000943172037203	37	1.48200498734383861312+003	39
38	1.4060049905006514762024+003	38	1.560049974705771348+003	40
39	1.4820050005432435+003	39	1.56000499759695970/9+003	41
40	1.560050001056/35690+003	40	1.6000499771426957944+003	42
41	1.64000500064325135+003	41	1.7200499782316125048+003	43
42	1.7200500028035862+003	42	1.8050049979244521251+003	44
43	1.8060050006512737U03	43	1.89200499831863281167+003	45
44	1.892005000622921Y180+003	44	1.9800499810689162197+003	46
45	1.9400050006313243510+003	45	2.060049981869561054+003	47
46	2.070005000C9239491U04+003	46	2.16200499826635591032+003	48
47	2.1620050003772192642+003	47	2.26004998358598605/18+003	49
48	2.256005000226458624+003	48	2.35200499846430227+003	50
49	2.35200500033962U3991+003	49	2.45000499264611058927+003	51
50	2.450005000311656976U+003	50	2.55000499853020276532+003	51

PROBLÈME EIGENVALUES H = 0,20

		H = 0		H = 1		H = 2	
		EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	0	1.330965976104292290*002	1	2.00799269351080376615*000	2	6.00571117820528177824*000	
	1	2.0239890246671145693*000	2	6.01713663842673777877*000	3	1.2013329742617990300*001	
	2	6.02096859094168553*000	3	1.20166688427180253021*001	4	2.0016103551743835973*001	
	3	1.202049718854101845*001	4	2.00192266827644331847*001	5	3.0017436310377322366*001	
	4	2.00202625882324418*001	5	3.001948660223576561*001	6	4.20181823741971874831*001	
	5	3.002017274080265421*001	6	4.201963735518465315*001	7	5.618643072030138061*001	
	6	4.2020122472540577032*001	7	5.6019729334183996665*001	8	7.201894784922558151594*001	
	7	5.6020091422806416673*001	8	7.20197901295770555525*001	9	9.00191608313026930*001	
	8	7.2020070892664/98972*001	9	9.00198324639725543670*001	10	1.1001931386411524435*002	
	9	9.0020056592014203425*001	10	1.10019863138621480238*002	11	1.32019886081934402431*002	
	10	1.10020046250731108320*002	11	1.32019886081934402431*002	12	1.56019517183646377569*002	
	11	1.32020038406238612080*002	12	1.5601990369222515244*002	13	1.8201958644542510159*002	
	12	1.560200325131505265*002	13	1.8201991075100795590*002	14	2.10019641790334158811*002	
	13	1.8202002786339331161*002	14	2.10019928549162713934*002	15	2.40019937507091178010*002	
	14	2.100200241355209324*002	15	2.40019944881707382684*002	16	2.7201972367353514843*002	
	15	2.40020022118895616453*002	16	2.72019944881707382684*002	17	3.06019754451886059250*002	
	16	2.7202001861165413086100*002	17	3.06019951021720935700*002	18	3.42019780356643424739*002	
	17	3.0602001654630505229*002	18	3.42019956188630418991*002	19	3.800198036528575622*002	
	18	3.42020014799104987219*002	19	3.8001996057518018444*002	20	4.20019821221985573238*002	
	19	3.80020013336250697919*002	20	4.2001996433397978489922*002	21	4.620198375018849*987*002	
	20	4.2002001574902217*002	21	4.2019675874217976743*002	22	5.0601985165189364047*002	
	21	4.6202001095864490939*002	22	5.0601997040902192612*002	23	5.52019864032579842236*002	
	22	5.0602000999547639573*002	23	5.5201997287074935339*002	24	6.0001987492359881805*002	
	23	5.520200091651519552*002	24	6.00019884556338279770*002	25	6.500198819964253672168*002	
	24	6.000200084271106267*002	25	6.50019976972895132740*002	26	7.02019978680467802235*002	
	25	6.50020007778384435199*002	26	7.02019978680467802235*002	27	7.5601990756165324551*002	
	26	7.020200072015/9235016*002	27	7.5601998010834344888*002	28	8.1201990761000174769*002	
	27	7.5602000666865468757*002	28	8.12019981573079842236*002	29	8.70019982000966858745*002	
	28	8.120200062250/2893862*002	29	8.7001998391195554960*002	30	9.3001998391195554960*002	
	29	8.7002000580920611240*002	30	9.3001998391195554960*002	31	9.800199849103243252*002	
	30	9.3002000543352//337959*002	31	9.800199849103243252*002	32	1.05601998936120947388*003	
	31	9.9202000499654132682*002	32	1.056019985835854161*003	33	1.200199866468731218*003	
	32	1.0560200048566338864*003	33	1.2202000998907028227*003	34	1.4900199519155590941*003	
	33	1.1220200045056172359*003	34	1.1900199874289251535*003	35	1.260019940479351260*003	
	34	1.1900200034031695726*003	35	1.2600199881277171905*003	36	1.33201994381253672168*003	
	35	1.260020004103/102417*003	36	1.332019987682586421*003	37	1.40601998936120947388*003	
	36	1.3320200039346465246*003	37	1.406019992051216414*003	38	1.48001994003318335108*003	
	37	1.40602000339570467462*003	38	1.48201998907028227*003	39	1.56001999244657632085*003	
	38	1.4820200034031695726*003	39	1.56001999044196435197*003	40	1.6400199542745234584*003	
	39	1.56002000338/6748420*003	40	1.64001999087989174412*003	41	1.7220199913437565674*003	
	40	1.64002000308/510466*003	41	1.80601999171852939935*003	42	1.80601995848185949476*003	
	41	1.7220200029353966872*003	42	1.80601999171852939935*003	43	1.892019992051216414*003	
	42	1.806020002794193537*003	43	1.89201999244657632085*003	44	1.980019962318335108*003	
	43	1.892020002706126763*003	44	1.98001999244657632085*003	45	2.07001996377888*0795*003	
	44	1.980020002514909344*003	45	2.0700199927751074330*003	46	2.1620199653275395946*003	
	45	2.070020002405123082*003	46	2.1620199930865854401*003	47	2.2560199667621269866*003	
	46	2.16200002363062683817*003	47	2.2560199933797886344*003	48	2.4500199681313516378*003	
	47	2.25602000234343657*003	48	2.3520199936163921692*003	49	2.4500199639860802149*003	
	48	2.35202000214780/3114*003	49	2.4500199938060530959*003	50	2.4500199705902273729*003	
	49	2.45002000201860810893*003	50	2.45001999413549540291*003	51	2.65201997173015584712*003	

PROLATE EIGENVALUES $M = 0.30$

		$M = 1$		$M = 2$	
		EIGENVALUE		EIGENVALUE	
L		L		L	
0	2,9880343734264445140+002	1	2,01796306015904128245+000	2	6,012841426664933747+000
1	2,05394441287859147138+000	2	6,0395399522432500038+000	3	1,2029881827509754919+001
2	6,07224724911613/091+000	3	1,202010968481415475+001	4	2,0036320104016569506+001
3	1,20460267261012359334+001	4	2,0033253845800194795+001	5	3,0032865347429506+001
4	2,005598797402873511+001	5	3,00338533562015961206+001	6	4,2040911941400904995+001
5	3,0045393768406426447+001	6	4,2044187234548569467+001	7	5,6043948425145103285+001
6	4,2052791058432652152+001	7	5,6044393315102585781+001	8	7,20426340129036661167+001
7	5,6045208333501042731+001	8	7,2045296361738386166+001	9	9,0043113662774561266+001
8	7,205161525731936961+001	9	9,00446245379003097900+001	10	1,1004345721804269528+002
9	9,00451289360152811303+001	10	1,1004493294856142665+001	11	1,320371588404947937+002
10	1,100451053243482164+002	11	1,3204744718373224983+002	12	1,560391437830501706+002
11	1,320450876659526838507+002	12	1,56044784191125263492+002	13	1,82044070188830101985+002
12	1,56045071102220850+002	13	1,5620481515451315329+002	14	2,10044194628069289865+002
13	1,88045063472826581272+002	14	2,1004483989303782201+002	15	2,4004429529392807047+002
14	2,10045054981426431030+002	15	2,400448597206703422+002	16	2,720447873599063286+002
15	2,4004504808666072187+002	16	2,7204876493599320586+002	17	3,060444479425850246+002
16	2,7204504214505104135+002	17	3,0604489025180722975+002	18	3,420450618737293367+002
17	3,0604503768863861235+002	18	3,42044901830800262714+002	19	3,80044556767697412922+002
18	3,4204503371208495011+002	19	3,800449866889093928+002	20	4,20044920096343350826+002
19	3,800450303339049332+002	20	4,20044920096343350826+002	21	4,620446346683591851981+002
20	4,20045027436262179014+002	21	4,6204492737266672153+002	22	5,060446648561157865+002
21	4,6204502494082690113+002	22	5,0604493369789597643+002	23	5,52044694317993968950+002
22	5,060450277684512684+002	23	5,0604492308260961619+002	24	5,0004451804541230178+002
23	5,320450206668605818980+002	24	6,00044944098816693549+002	25	6,5004474061074945354+002
24	6,000450191969392791+002	25	6,5004494844010239201+002	26	7,0204475970767282604+002
25	6,20045017718463993562+002	26	7,02044923029986831+002	27	7,56044776889222132359+002
26	7,020450164904219+002	27	7,02045016496495798+002	28	8,120449587078123103+002
27	7,56045015231252334780+002	28	8,120449587078123103+002	29	8,70044961463112977884+002
28	8,12050141808817305b+002	29	8,70044961463112977884+002	30	9,30044963951461925710+002
29	8,7005012323895223879+002	30	9,30044963951461925710+002	31	9,9204498300996128051+002
30	9,3004501237457567074+002	31	9,92044962062720+002	32	10,204498432000583224+003
31	9,920450116050351576+002	32	1,0560449682559038495+003	33	1,122044970124510764+003
32	1,056045010901949005+003	33	1,122044970124510764+003	34	1,1900448531266680716+003
33	1,122045015231252334780+003	34	1,1900450109012130+003	35	1,26004497339862513948+003
34	1,19004500967285696038+003	35	1,26004497339862513948+003	36	1,3320448734263671432+003
35	1,2600450091351417891+003	36	1,3320449748373827251+003	37	1,40604497616247146743+003
36	1,33204500841298378+003	37	1,40604497616247146743+003	38	1,4820449822881450685+003
37	1,406045008168013776+003	38	1,4820449773855487+003	39	1,56004497851686578434+003
38	1,48204500776596214+003	39	1,56004497851686578434+003	40	1,6400449795653076087+003
39	1,5660450073775013721+003	40	1,6400449795653076087+003	41	1,72204498053883067913+003
40	1,6000450070172132362+003	41	1,7220449814693244103+003	42	1,8060449814443450685+003
41	1,722045006683149392+003	42	1,8060449814443450685+003	43	1,8920449822881450685+003
42	1,806045006372266042+003	43	1,8920449822881450685+003	44	1,9800449830756462578+003
43	1,8620450060823931818+003	44	1,9800449830756462578+003	45	2,0700449818621+003
44	1,98004500581172763504+003	45	2,07004498381180325242+003	46	2,162044920360555n4n+003
45	2,0700450055916819074+003	46	2,1620449845009260719+003	47	2,266044972857100517+003
46	2,1620450053222+21254+003	47	2,266044980538832904778+003	48	2,332044923362904778+003
47	2,2560450051063320b+003	48	2,3520449857533226588+003	49	2,45004493120375615269+003
48	2,3520450048924432723+003	49	2,5200449339024777828+003	50	2,6520449339024777828+003
49	<45004500469665417073+003	50	<45004498685903047137+003		

PROLATE EIGENVALUES H = 0.40

M = 0		M = 1		M = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	5.29560091209143499764e+002	1	2.03188346936991197323e+000	2	6.02260753313230507431e+000
1	2.09582420918816889e+000	2	6.06847197333336477616e+000	3	1.205375922237137651e+001
2	6.0840674013922137e+000	3	1.21535386943e+001	4	2.0064409979900593552e+001
3	1.2081862351060030977e+001	4	2.007691353281633553e+001	5	3.00697361568566169345e+001
4	2.008108412435423712e+001	5	3.007797147538326559e+001	6	4.20727361568566169345e+001
5	3.0080712690848246882e+001	6	4.2078562599267295326e+001	7	5.6074578741252253435e+001
6	4.2080503766884852214e+001	7	5.6078927281434349e+001	8	7.207597164768788748e+001
7	5.60803402631616348e+002	8	7.20791683884675534309e+001	9	9.0076436313664545450e+001
8	7.2080292177600899368e+001	9	9.0079336230007345820e+001	10	1.100725982097252728e+002
9	9.008023320610971906e+001	10	1.1007945781509722257e+002	11	1.32077193370128848274e+002
10	1.1080190480264122710e+002	11	1.32079548739437592853e+002	12	1.56018072039552661693e+002
11	1.320801588476359223e+002	12	1.56079618152799648262e+002	13	1.8227834693771378473e+002
12	1.5608013402631616348e+002	13	1.82079673261229526245e+002	14	2.1007856972051770245e+002
13	1.820801144958209772e+002	14	2.10079717016156848051e+002	15	2.40078749110945915962e+002
14	2.100800994507543745e+002	15	2.4007975249632483268e+002	16	2.72078496713961559279e+002
15	2.4008008659604179614e+002	16	2.72079781701778910953e+002	17	3.06079806024658549835e+002
16	2.720800766985365636e+002	17	3.06079806024658549835e+002	18	3.4207912306890984670e+002
17	3.06080068153886477477e+002	18	3.4207982648900953893e+002	19	3.80079210494936408428e+002
18	3.42080062815378864e+002	19	3.800798247247361772e+002	20	4.200798247247361772e+002
19	3.8008005653205482914e+002	20	4.20079856778666927645e+002	21	4.62079871636105325948e+002
20	4.200800491928394173e+002	21	4.62079871636105325948e+002	22	5.06079826111273299e+002
21	4.62080045167132e+002	22	5.06079826111273299e+002	23	5.207955717433338671e+002
22	5.06080041724712e+002	23	5.207989259561023050e+002	24	6.0007950061061986e+002
23	5.52080037363588805e+002	24	6.000798242275774902e+002	25	6.50079535124332146327e+002
24	6.0008003413414282714e+002	25	6.50079535124332146327e+002	26	7.0207957329673323469e+002
25	6.500800500967176287791e+002	26	7.0207957329673323469e+002	27	7.58079603808234368164e+002
26	7.02080029637707b132e+002	27	7.58079603808234368164e+002	28	8.12079631159092613919e+002
27	7.5608002754266242793e+002	28	8.120797927020752861e+002	29	8.700765577140531618e+002
28	8.1208002564127604962e+002	29	8.7007931890534175744e+002	30	9.300796779906476732e+002
29	8.70080023530268302552e+002	30	9.300793628829137933e+002	31	9.92079698140572333731e+002
30	9.30080022385035223484e+002	31	9.9207940273546061e+003	32	1.05607994389610947549e+003
31	9.92080020568431886515e+002	32	1.05607994389610947549e+003	33	1.12207994719991397151e+003
32	1.05608001971204995212e+003	33	1.12207994719991397151e+003	34	1.1900797484001364316e+003
33	1.122080018551681935e+003	34	1.19007995021817671122e+003	35	1.26007976238660213329e+003
34	1.19008001749065b2856e+003	35	1.19007995021817671122e+003	36	1.33207995552888135635e+003
35	1.2600800151852272450e+003	36	1.33207995552888135635e+003	37	1.40607995787043451218e+003
36	1.33208001526206419294e+003	37	1.40607995787043451218e+003	38	1.4820799686994331071e+003
37	1.40608001971204995212e+003	38	1.4820799686994331071e+003	39	1.560079962031180249e+003
38	1.48208001402742561793e+003	39	1.56007996203154566401e+003	40	1.64007996170808449e+003
39	1.56008001354024128319e+003	40	1.64007996170808449e+003	41	1.72207996560517387111e+003
40	1.6400800126887170673e+003	41	1.72207996560517387111e+003	42	1.80607996720365191277e+003
41	1.7220800120468481180e+003	42	1.80607996720365191277e+003	43	1.89207984174272528159e+003
42	1.806080011223187570e+003	43	1.8920799686994331071e+003	44	1.980079820333825e+003
43	1.8920800109953525936e+003	44	1.9800799708876032975e+003	45	2.07007997138975865708e+003
44	1.98008001053802908e+003	45	2.07007997138975865708e+003	46	2.162079972660306e+003
45	2.070080010522518906e+003	46	2.162079972660306e+003	47	2.256079973749299427e+003
46	2.162080006243174452e+003	47	2.256079973749299427e+003	48	2.320798727528159e+003
47	2.2560800092251605626e+003	48	2.35207997482125138029e+003	49	2.4500798778371563767e+003
48	2.352080008845268435e+003	49	2.45007997582873475426e+003	50	2.5500799826293769814e+003
49	2.450080008849259593845e+003	50	2.65207988714501118595e+003		

PROLATE EIGENVALUES $\mu = 0.50$		$\mu = 1$		$\mu = 2$	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	M = 0	L	M = 1	L	M = 2
0	6.24146067425269924097e-002	1	2.0497161622204047e-000	2	6.03559336972095721281e-000
1	2.14957048635102664049e-000	2	6.1069001304053324721e+000	3	1.2083193241607072708e-001
2	6.13157927012663143624e-000	3	1.2116750124186342607e-001	4	2.0100635494635647740e-001
3	2.0126798457359794e-001	4	2.0102058225599e-001	5	3.0108990505176764022e-001
4	2.012673440291791222e-001	5	3.0121850414220057186e+001	6	4.2113658031195109944e-001
5	3.01261390130122197396e-001	6	4.2122769124426947092e+001	7	5.61165368371902165302e-001
6	4.21258067990785142449e-001	7	5.612333550319927236e-001	8	7.2118439825238e-001
7	5.1256019826114717963e-001	8	7.2123709827097408e+001	9	9.0119764273016939073e-001
8	7.21254666140213512337e-001	9	9.01239703288323661796e-001	10	1.10120723581088317145e-002
9	9.0125372405798724556e-001	10	1.1012415900511J7356e+002	11	1.32121440905978543275e-002
10	1.10125304171902581922e-002	11	1.3212430007202762899e-002	12	1.5612199143442443052e-002
11	1.3212525315086352380e-002	12	1.561244083545206674031e-002	13	1.6212242323157134059e-002
12	1.5612521369926292225e-002	13	1.8212449326231824120e-002	14	2.1012276815719893R41e-002
13	1.82125183280390u0737e-002	14	2.1012456110219318012e-002	15	2.40123048146328109R0e-002
14	2.1012515874460877972e-002	15	2.40124616158847669921e-002	16	2.7121232784926999776568e-002
15	2.401251388314279132e-002	16	2.7121234661457884145089e-002	17	3.0612347030351540935e-002
16	2.712125122443144845208e-002	17	3.0612469917038242108e-002	18	3.4212363171974880196e-002
17	3.616251088803433J/11u8e-002	18	3.421247309221420664J+002	19	3.8012376885375997670e-002
18	3.42125097432493y50612e-002	19	3.801247578990398A87229e-002	20	4.20123986346646718418e-002
19	3.01250872699480294e-002	20	4.201247809972033792e-002	21	4.62123878767194097e-002
20	4.20125079213252289u294u02	21	4.621248009485016C382e-002	22	5.0612475934990526n69e-002
21	4.9212507198964963081e-002	22	5.0612481827354260979e-002	23	5.5212415305341468728e-002
22	5.06125065727781635740e-002	23	5.5212483346002977699e-002	24	6.0012422090912638307e-002
23	5.52125060242126347e-002	24	6.0012486782473126862e-002	25	6.501248585898966656753e-002
24	6.00125054166002187430e-002	25	6.501248585898966656753e-002	26	7.0212433424664379778e-002
25	6.501250511472217066e-002	26	7.02124869077429031021e-002	27	7.56124381853631268471e-002
26	7.0212490784352252026e-002	27	7.02124927784352252026e-002	28	8.12124424528160771671e-002
27	7.5612503439662505u0728e-002	28	8.121248863U1750771986e-002	29	8.7012462930769414819e-002
28	8.12125040935e-002	29	8.701248943838646813030e-002	30	9.301244976187532265e-002
29	8.7012503820153e-002	30	9.30124901203811101384e-002	31	9.921245290378746794e-002
30	9.3321250373e-002	31	9.3321249073884476442e-002	32	1.061245576386796180e-003
31	9.921250334982085361u1e-002	32	1.0561249130014657204e-003	33	1.12124249836167284078e-003
32	1.0561250314633953536e+003	33	1.12124249181287090410e-003	34	1.1901246075526485970e-003
33	1.121242502996145547e-003	34	1.1901249228089311499e-003	35	1.2601246292771955073e-003
34	1.190125027921123347e-002	35	1.260124927903920041003	36	1.33212464932966392730e-003
35	1.2601250202636923380717e-003	36	1.33212493103963235282e-003	37	1.4061247414910249513e-003
36	1.3321250249429e-003	37	1.4061249346713079810e-003	38	1.4821246848284071204e-003
37	1.4061250236294u2/yy1e-003	38	1.4821243380234136768e-003	39	1.5601247006022998114e-003
38	1.4821250224892064e-003	39	1.5601249411392451463e-003	40	1.64012471522217873361e-003
39	1.48212502129349970138e-003	40	1.6401249439974105923e-003	41	1.722124728672582879e-003
40	1.6401250202516338691e-003	41	1.72212494666551135858e-003	42	1.8061247414910249513e-003
41	1.722125019291142zu81e-003	42	1.8061249491434784248e-003	43	1.89212475316848073395e-003
42	1.8161250183943626201e-003	43	1.8921249514586665493e-003	44	1.9801247641344942125e-003
43	1.8921250172270u2732e-003	44	1.9801249536181274869e-003	45	2.070124774402265260e-003
44	1.860125016763506120e-003	45	2.070124956655512502e-003	46	2.1621247840591877204e-003
45	2.0012501616466260u/yy1e-003	46	2.16212495752214282125e-003	47	2.2561247930094087256e-003
46	2.1621250153635274/72e-003	47	2.25612495926341003e-003	48	2.35212496095667539241e-003
47	2.2561250147216629044e-003	48	2.352124881688118351921e-003	49	2.4501248094099451753e-003
48	2.352125013556938928074486e-003	49	2.55012481688118351921e-003	50	2.65212482392703435403e-003
49	2.450125013556938928074486e-003	50	2.55012482392703435403e-003		

PROLATE EIGENVALUES H = 0.00

W = 0

EIGENVALUE

L	EIGENVALUE
0	1.18102156512674029974*001
1	2.215108515114877050h+000
2	6.153782066614824498*000
3	1.2168644466715168711*000
4	1.2181142966707476U5171*001
5	2.01731406452971955292*001
6	3.017545997434696102/32*001
7	4.21766140415362295971*001
8	5.617762360688A7999740*001
9	7.217815638629940298525*001
10	9.01785534163933189276*001
11	1.101787990984952817*002
12	1.32179001206979061239*002
13	1.56175674488030603548*002
14	1.82179226954629983200*002
15	2.1017931377228301539*002
16	2.4017955324278598150*002
17	2.72179516048493510/3*002
18	3.421790330636893215*002
19	3.80178302179856343*002
20	4.2017839912377973642*002
21	4.60178544937530290999*002
22	5.01787825526220672*002
23	5.5017880098674190275*002
24	6.001788663663618201*002
25	6.50179043032345614402*002
26	7.0217911458910705972*002
27	7.561791798581645774606*002
28	8.1217917280525445696*002
29	8.7017922800093866092*002
30	9.3017984932807011087*002
31	9.9217932303622002769*002
32	1.0501793640972704484*003
33	1.1221794015286761324*003
34	1.122179838554655814265*002
35	1.1901798987567173278*003
36	1.2601798959980132168*003
37	1.332179016234990261*003
38	1.40617996878789*003
39	1.4821798115866116550*003
40	1.560179916009R074875*003
41	1.640179921091130036*003
42	1.7221799239154081122*003
43	1.8061799274559702573*003
44	1.89217993075497720299*003
45	1.98017993583391989195*003
46	2.07017993671939304*003
47	2.162179939406157324/3*003
48	2.2561799419318969662*003
49	2.35217994430291992458*003
50	2.4501799465316123288*003
51	2.5501799462914337607*003

W = 1

EIGENVALUE

L	EIGENVALUE
2	2.071413194999900734049*000
3	6.153782066614824498*000
4	1.2168644466715168711*000
5	2.01731406452971955292*001
6	4.21766140415362295971*001
7	5.617762360688A7999740*001
8	7.217815638629940298525*001
9	9.01785534163933189276*001
10	1.101787990984952817*002
11	1.32179001206979061239*002
12	1.56175674488030603548*002
13	1.82179226954629983200*002
14	2.1017931377228301539*002
15	2.4017955324278598150*002
16	2.72179516048493510/3*002
17	3.0617951014473527*002
18	3.421796161060644411*002
19	3.801795458568877905*002
20	4.2017967552214687521*002
21	4.601797074962403442*002
22	5.017971601142605077*002
23	5.50179725807285822*002
24	5.521797235087285822*002
25	6.0017978142560794871*002
26	6.501797982623327800d6*002
27	7.0217981322483677870*002
28	7.561798581645774606*002
29	8.0717922800093866092*002
30	9.3017984932807011087*002
31	9.9217932303622002769*002
32	1.0501793640972704484*003
33	1.1221794015286761324*003
34	1.122179838554655814265*002
35	1.1901798987567173278*003
36	1.2601798959980132168*003
37	1.332179016234990261*003
38	1.40617996878789*003
39	1.4821798115866116550*003
40	1.560179916009R074875*003
41	1.640179921091130036*003
42	1.7221799239154081122*003
43	1.8061799274559702573*003
44	1.89217993075497720299*003
45	1.98017993583391989195*003
46	2.07017993671939304*003
47	2.162179939406157324/3*003
48	2.2561799419318969662*003
49	2.35217994430291992458*003
50	2.4501799465316123288*003
51	2.5501799462914337607*003

PROBLATE EIGENVALUES $\lambda = 0.70$

$m = 0$		$m = 1$		$m = 2$		EIGENVALUE		EIGENVALUE		FIGENVALUE			
L	0	1.5963234560001/26327-001	1	2.09791662018199290115+000	2	6.069537542356661136706+000	3	1.21627938965089618850+001	4	2.019721740598756851+001	5	3.0228980556905930491+001	
1	2.2923465804320275431+000	2	6.20906839017344736169+000	3	1.2228980556905930491+001	4	2.023572291177520+001	5	3.0238931394946478946+001	6	4.0222810402900042719+001	7	5.6226451617750267291+001
2	0.2590469479844274434+000	3	1.2228980556905930491+001	4	2.023572291177520+001	5	3.0238931394946478946+001	6	4.0222810402900042719+001	7	5.6226451617750267291+001	8	7.2232177354322143200+001
3	1.2251242237176142+001	9	7.22425195806275544652+001	10	9.02430208199031257756+001	11	1.102433835690815736+002	12	1.5623912444949755761+002	13	1.872399629119406122+002	14	2.024064319874591752+002
4	1.2246667352505283726+001	15	7.22425195806275544652+001	16	9.02430208199031257756+001	17	1.102433835690815736+002	18	1.5624232322954870506+002	19	1.872399629119406122+002	20	2.024245906569119117+002
5	5.6246248331737176142+001	21	8.02244026560822821674+002	22	1.0244156402744790+002	23	5.02243195782189278901+002	24	5.422433438882409004+002	25	6.0224347884230088084+002	26	6.802425906569119117+002
6	7.2245967265099053945b+001	27	9.02244535038057699640+002	28	1.0244156402744790+002	29	5.02243590613740+002	30	6.02243590613740+002	31	6.802425906569119117+002	32	7.02243705473270+002
7	9.025577181420/616753+001	33	1.02441626273951578015+002	34	5.0224461773359635801+002	35	6.0224461773359635801+002	36	6.802425906569119117+002	37	7.02243705473270+002	38	7.5624379315402283519+002
8	9.025577181420/616753+001	39	1.02441626273951578015+002	40	5.0224461773359635801+002	41	6.0224461773359635801+002	42	6.802425906569119117+002	43	7.0224461773359635801+002	44	7.5624461773359635801+002
9	9.025577181420/616753+001	45	1.02441626273951578015+002	46	5.0224461773359635801+002	47	6.0224461773359635801+002	48	6.802425906569119117+002	49	7.0224461773359635801+002	50	7.5624461773359635801+002
10	9.025577181420/616753+001	51	< 0.5501244920348371561+003	52	< 0.5501244920348371561+003	53	< 0.5501244920348371561+003	54	< 0.5501244920348371561+003	55	< 0.5501244920348371561+003	56	< 0.5501244920348371561+003
11	1.1024563022664640501+002	57	1.02441626273951578015+002	58	5.0224461773359635801+002	59	6.0224461773359635801+002	60	6.802425906569119117+002	61	7.0224461773359635801+002	62	7.5624461773359635801+002
12	1.1024563022664640501+002	63	1.02441626273951578015+002	64	5.0224461773359635801+002	65	6.0224461773359635801+002	66	6.802425906569119117+002	67	7.0224461773359635801+002	68	7.5624461773359635801+002
13	1.1024563022664640501+002	69	1.02441626273951578015+002	70	5.0224461773359635801+002	71	6.0224461773359635801+002	72	6.802425906569119117+002	73	7.0224461773359635801+002	74	7.5624461773359635801+002
14	1.1024563022664640501+002	75	1.02441626273951578015+002	76	5.0224461773359635801+002	77	6.0224461773359635801+002	78	6.802425906569119117+002	79	7.0224461773359635801+002	80	7.5624461773359635801+002
15	1.1024563022664640501+002	81	1.02441626273951578015+002	82	5.0224461773359635801+002	83	6.0224461773359635801+002	84	6.802425906569119117+002	85	7.0224461773359635801+002	86	7.5624461773359635801+002
16	1.1024563022664640501+002	87	1.02441626273951578015+002	88	5.0224461773359635801+002	89	6.0224461773359635801+002	90	6.802425906569119117+002	91	7.0224461773359635801+002	92	7.5624461773359635801+002
17	1.1024563022664640501+002	93	1.02441626273951578015+002	94	5.0224461773359635801+002	95	6.0224461773359635801+002	96	6.802425906569119117+002	97	7.0224461773359635801+002	98	7.5624461773359635801+002
18	1.1024563022664640501+002	99	1.02441626273951578015+002	100	5.0224461773359635801+002	101	6.0224461773359635801+002	102	6.802425906569119117+002	103	7.0224461773359635801+002	104	7.5624461773359635801+002
19	1.1024563022664640501+002	105	1.02441626273951578015+002	106	5.0224461773359635801+002	107	6.0224461773359635801+002	108	6.802425906569119117+002	109	7.0224461773359635801+002	110	7.5624461773359635801+002
20	1.1024563022664640501+002	111	1.02441626273951578015+002	112	5.0224461773359635801+002	113	6.0224461773359635801+002	114	6.802425906569119117+002	115	7.0224461773359635801+002	116	7.5624461773359635801+002
21	1.1024563022664640501+002	117	1.02441626273951578015+002	118	5.0224461773359635801+002	119	6.0224461773359635801+002	120	6.802425906569119117+002	121	7.0224461773359635801+002	122	7.5624461773359635801+002
22	1.1024563022664640501+002	123	1.02441626273951578015+002	124	5.0224461773359635801+002	125	6.0224461773359635801+002	126	6.802425906569119117+002	127	7.0224461773359635801+002	128	7.5624461773359635801+002
23	1.1024563022664640501+002	129	1.02441626273951578015+002	130	5.0224461773359635801+002	131	6.0224461773359635801+002	132	6.802425906569119117+002	133	7.0224461773359635801+002	134	7.5624461773359635801+002
24	1.1024563022664640501+002	135	1.02441626273951578015+002	136	5.0224461773359635801+002	137	6.0224461773359635801+002	138	6.802425906569119117+002	139	7.0224461773359635801+002	140	7.5624461773359635801+002
25	1.1024563022664640501+002	141	1.02441626273951578015+002	142	5.0224461773359635801+002	143	6.0224461773359635801+002	144	6.802425906569119117+002	145	7.0224461773359635801+002	146	7.5624461773359635801+002
26	1.1024563022664640501+002	147	1.02441626273951578015+002	148	5.0224461773359635801+002	149	6.0224461773359635801+002	150	6.802425906569119117+002	151	7.0224461773359635801+002	152	7.5624461773359635801+002
27	1.1024563022664640501+002	153	1.02441626273951578015+002	154	5.0224461773359635801+002	155	6.0224461773359635801+002	156	6.802425906569119117+002	157	7.0224461773359635801+002	158	7.5624461773359635801+002
28	1.1024563022664640501+002	159	1.02441626273951578015+002	160	5.0224461773359635801+002	161	6.0224461773359635801+002	162	6.802425906569119117+002	163	7.0224461773359635801+002	164	7.5624461773359635801+002
29	1.1024563022664640501+002	165	1.02441626273951578015+002	166	5.0224461773359635801+002	167	6.0224461773359635801+002	168	6.802425906569119117+002	169	7.0224461773359635801+002	170	7.5624461773359635801+002
30	1.1024563022664640501+002	171	1.02441626273951578015+002	172	5.0224461773359635801+002	173	6.0224461773359635801+002	174	6.802425906569119117+002	175	7.0224461773359635801+002	176	7.5624461773359635801+002
31	1.1024563022664640501+002	177	1.02441626273951578015+002	178	5.0224461773359635801+002	179	6.0224461773359635801+002	180	6.802425906569119117+002	181	7.0224461773359635801+002	182	7.5624461773359635801+002
32	1.1024563022664640501+002	183	1.02441626273951578015+002	184	5.0224461773359635801+002	185	6.0224461773359635801+002	186	6.802425906569119117+002	187	7.0224461773359635801+002	188	7.5624461773359635801+002
33	1.1024563022664640501+002	189	1.02441626273951578015+002	190	5.0224461773359635801+002	191	6.0224461773359635801+002	192	6.802425906569119117+002	193	7.0224461773359635801+002	194	7.5624461773359635801+002
34	1.1024563022664640501+002	195	1.02441626273951578015+002	196	5.0224461773359635801+002	197	6.0224461773359635801+002	198	6.802425906569119117+002	199	7.0224461773359635801+002	200	7.5624461773359635801+002
35	1.1024563022664640501+002	201	1.02441626273951578015+002	202	5.0224461773359635801+002	203	6.0224461773359635801+002	204	6.802425906569119117+002	205	7.0224461773359635801+002	206	7.5624461773359635801+002
36	1.1024563022664640501+002	207	1.02441626273951578015+002	208	5.0224461773359635801+002	209	6.0224461773359635801+002						

REGULATE EIGENVALUES $H = 0.80$		$m = 2$	
$m = 0$		$m = 1$	
L	EIGENVALUE	L	EIGENVALUE
0	2.073904976512515E+001	1	2.126159144554465174E+000
1	4.52117577511587E+001	2	6.2276975044427756E+000
2	6.359261681212678E+001	3	1.222991450335751E+001
3	1.2024647557455604012E+001	4	2.027556672003537363E+001
4	2.0321643803601625E+001	5	3.02790774787040524719E+001
5	3.03212483715821397E+001	6	4.222105459086683646E+001
6	4.0321445593374329062E+001	7	5.624841790211044024E+001
7	4.52126262676742654E+001	8	7.23532R07961995722689E+001
8	5.21216635754479477E+001	9	9.04366614648512H1R35E+001
9	5.82123064352834904E+001	10	1.1609190303804802352E+002
10	6.321206422064935257105E+001	11	1.321093793855102974E+002
11	6.8211520510421724264E+001	12	1.2312341023565361343E+002
12	7.23210704122959412774E+001	13	1.8211344115497265071E+002
13	7.6315A67900566615E+001	14	2.1011319872307071418E+002
14	8.23167994432104341E+001	15	2.4011505279283847691E+002
15	8.83174458994727206U9E+001	16	2.731561930912921128E+002
16	9.31791526573991637205E+001	17	3.0631610763682H91n69E+002
17	9.8315914534122739672U99E+001	18	3.46316518561651931280E+002
18	1.0231620540794E+002	19	3.80316807608057747281E+002
19	1.125119128510944267E+002	20	4.203171066370537319E+002
20	1.2132043142702332E+002	21	4.623174247704670737E+002
21	1.3132043142702332E+002	22	5.0631955071531654208E+002
22	1.4132038423450327234E+002	23	5.5231784507125462859E+002
23	1.5132031142234067053E+002	24	6.003180180542971511E+002
24	1.6132027211796479753E+002	25	6.50318170745203275873E+002
25	1.7132024452467012654E+002	26	7.0231967484550163494E+002
26	1.813202214772651650E+002	27	7.5631969971123891156E+002
27	1.913202214772651650E+002	28	8.11231969971123891156E+002
28	2.013201145747185052E+002	29	8.7631863864369735935E+002
29	2.123197195052972E+002	30	9.318638827207697347166E+002
30	2.2319620594296771E+002	31	9.9231964920553176282E+002
31	2.321964920553176282E+002	32	1.0563191550222227944E+003
32	2.421964920553176282E+002	33	1.1231969971123891156E+003
33	2.521964920553176282E+002	34	1.190319797329083610470E+003
34	2.621964920553176282E+002	35	1.26031905703492567682E+003
35	2.7231961953877119831E+003	36	1.3331910804404882161E+003
36	2.8231962930073277003	37	1.4053191550222227944E+003
37	2.923196348383450E+003	38	1.46319638349487741E+003
38	3.0231964211540E+003	39	1.506319267922410E+003
39	3.1231964211540E+003	40	1.643194261982H918440E+003
40	3.2231964211540E+003	41	1.723193101714H378n82E+003
41	3.3231964211540E+003	42	1.8131934227717433405E+003
42	3.4231964211540E+003	43	1.8923193721649503105E+003
43	3.5231964211540E+003	44	1.96319420149319859E+003
44	3.6231964211540E+003	45	2.023194261982H918440E+003
45	3.7231964211540E+003	46	2.123194261982H917228E+003
46	3.8231964211540E+003	47	2.223194735272209n58E+003
47	3.9231964211540E+003	48	2.3231949502949874167E+003
48	4.0231964211540E+003	49	2.423195152517570987E+003
49	4.1231964211540E+003	50	2.523195521724651164E+n03
50	4.2231964211540E+003	51	2.623195521724651164E+n03

FIGURE 1

L

FIGURE 1

FIGURE 1

PROLATE EIGENVALUES M = 0,90		M = 2	
L	EIGENVALUE	L	EIGENVALUE
0	2.0111533496111525119370521+001	2	2.15906455919904142471+000
1	2.411469715/8886386987+000	2	6.346003272147906717+000
2	6.430668491595929894+000	3	1.237883504940544815+001
3	1.241619114959194+001	4	2.032594730133545147+001
4	2.41389994466950960177+001	5	3.0353209233488204513+001
5	3.395197287822270679+001	6	4.23664078198661917371+001
6	4.3980753300997097546+001	7	5.637731143915446177+001
7	5.39984153664585290+001	8	7.2363880986301914183+001
8	7.2406715191536011/206+001	9	9.036815497050876140+001
9	7.3405363202213521217+001	10	1.10391247737137056353+002
10	1.104061713924379268396+002	11	1.3239355797593280170+002
11	1.32402836459303061410+002	12	1.5639533029733767619+002
12	1.56403171647342536+002	13	1.839671975496713218+002
13	1.82403434407398227749+002	14	2.10397829374774564490+002
14	2.104036442360595960613+002	15	2.40398729669886627121+002
15	2.4040381447658815603+002	16	2.72394702350532235512+002
16	2.724039545052676083+002	17	3.064006878368704+002
17	3.0640407183734757489+002	18	3.4240060569367487106+002
18	3.42404169117365911518+002	19	3.800104623892402026+002
19	3.8240537012295222656+002	20	4.200142373828674272+002
20	4.21404323586791395827+002	21	4.626174959902418379+002
21	4.7240434547839109694+002	22	5.0602032833461193533+002
22	5.06404439502920960749+002	23	5.520228057317345654+002
23	5.524045835140623+002	24	6.0040452707290091596+002
24	6.0500456391231876367+002	25	6.500269124732923345+002
25	6.500269124732923345+002	26	7.0202862524192225981+002
26	7.02404599894956228587+002	27	7.5640301541495358139+002
27	7.564042546143441959+002	28	8.12031524613441959+002
28	8.12404656710647711603+002	29	8.7002375780666625087+002
29	8.7040467402548267780+002	30	9.300338714729968422+002
30	9.30404695180190486634+002	31	9.920338805815619650+002
31	9.920338805815619650+002	32	1.05640473150086668185+003
32	1.05640473150086668185+003	33	1.1220366340389381633+003
33	1.1220366340389381633+003	34	1.1900373984876980304+003
34	1.1904476176192226450+003	35	1.260038099159975560+003
35	1.26004046827150752695+003	36	1.722041294039544059+003
36	1.73240478718022705745+003	37	1.4064393558818245263+003
37	1.406404793889533604+003	38	1.4820402076713812137+003
38	1.48240485020714865+003	39	1.5604040389330614610+003
39	1.56245666230269+003	40	1.60042758395029989+003
40	1.6004046827150752695+003	41	1.722041294039544059+003
41	1.7224048354099855+003	42	1.8064041699190746892+003
42	1.8064048410090134+003	43	1.8920402076713812137+003
43	1.89240485020714865+003	44	1.98040424290515204265+003
44	1.98140485020714865+003	45	2.00042758395029989+003
45	2.0140485020714865+003	46	2.1620430666959109079+003
46	2.10240485020714865+003	47	2.25660433557121093922+003
47	2.25660433557121093922+003	48	2.352043627036804863+003
48	2.352043627036804863+003	49	2.450043882064976061+003
49	2.450043882064976061+003	50	2.55004422085423363+003
50	2.55004422085423363+003	51	2.6520443482474690447+003

PROGLATE EIGENVALUES H = 1.00		M = 1		M = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	U	L	U	L	U
3.190000551468273971464*001	2.19554815541300395688*000	1	6.14094991935769050915*000	2	6.14094991935769050915*000
2.59308437997714401220*000	6.4246991437751342003*000	2	1.23310151297257994*001	3	1.23310151297257994*001
6.5334713105237379643149*000	1.24679553303039144137025*001	3	2.042353049588713150*001	4	2.042353049588713150*001
1.251446214504404305*001	2.081696013053180916*001	4	3.0461453887136587895*001	5	3.0461453887136587895*001
2.050827435675030572*001	3.0488065779448845572*001	5	4.24588916104798408*001	6	4.24588916104798408*001
3.05054404253221705329*001	4.24977542246056*001	6	5.6451698085660717215*001	7	5.6451698085660717215*001
4.25038161265975043194*001	5.6493727742521656733*001	7	6.243983457936874786*001	8	6.243983457936874786*001
5.6502844502397119234*001	7.24951465012296741605*001	8	7.04792534039007370*001	9	7.04792534039007370*001
7.250222161684296222*001	9.04961302331647010972*001	9	1.1043064544928302719*002	10	1.1043064544928302719*002
9.0501736436312603765*001	1.04966814455143916*002	10	1.32497372611392546464*002	11	1.32497372611392546464*002
1.1050143926911208/2618*002	1.32497372611392546464*002	11	1.56488094776880076428*002	12	1.56488094776880076428*002
1.32501119127510636628*002	1.564977987899487128*002	12	1.822980615422706884*002	13	1.822980615422706884*002
1.6265010014324321684244*002	1.82498099100641022327*002	13	2.1046172691770168997*002	14	2.1046172691770168997*002
1.82500853522132142515*002	2.049883535221325067*002	14	2.4092281329626129612912*002	15	2.4092281329626129612912*002
2.10500747803944212135*002	2.409656073264349025*002	15	2.724931931994256537*002	16	2.724931931994256537*002
2.4050065191421261905*002	2.7498730787744531203*012	16	3.069395231636200104*012	17	3.069395231636200104*012
2.72501057682051702/04*002	3.06498882350731398221*002	17	3.42494591026960081526*002	18	3.42494591026960081526*002
3.0650051344659/03512*002	3.4249889145865210165*002	18	3.800135298080046828*002	19	3.800135298080046828*002
5.42500458282328413448*002	5.049909262084102015*002	19	4.20495598263119841975*002	20	4.20495598263119841975*002
3.005004132642/445140*002	4.204997927807312015*002	20	4.6229599940354599989*002	21	4.6229599940354599989*002
4.2050037295344674544*002	4.6249925407754301172*002	21	5.06934806057611529*002	22	5.06934806057611529*002
4.6250033454680648022*002	5.0649931908981138428*002	22	5.5249665301378908844*002	23	5.5249665301378908844*002
5.06500309435780115295/7*002	5.524963195210982767*002	23	6.004969210982767*002	24	6.004969210982767*002
5.525002686014426529*002	6.004992597285655512*002	24	6.5019715851665516671*002	25	6.5019715851665516671*002
6.005002608734*/213595*002	6.5049947207885173461*002	25	7.0249736933601334787*002	26	7.0249736933601334787*002
6.505002407413287539*002	7.02499904516812131297*002	26	7.564975752239949744*002	27	7.564975752239949744*002
7.02500222912231914945*002	7.56499546052476337*002	27	8.1249772620398398429*002	28	8.1249772620398398429*002
7.565002056677141252*30*002	7.56499546056774579217*002	28	8.70497767798779370551*002	29	8.70497767798779370551*002
8.1230019267522165992*002	8.12499576056774579217*002	29	9.3049801505850670724*002	30	9.3049801505850670724*002
8.705001781458545358*002	9.30499299146761247479*002	30	9.9249813925892222461*002	31	9.9249813925892222461*002
9.305001642008257469*002	9.5049947207885173461*002	31	1.05649865377425220608715*003	32	1.05649865377425220608715*003
9.9250015767713599126*002	1.0564996741211689229*003	32	1.122983550705807568*003	33	1.122983550705807568*003
1.056500161114166328*003	1.1224966453103650038*003	33	1.194984491567543145*003	34	1.194984491567543145*003
1.12250013935080862601*003	1.1904997108526174195*003	34	1.2604985353910898653*003	35	1.2604985353910898653*003
1.1905001141895158*003	1.2604997108526174195*003	35	1.3249974170452168486*003	36	1.3249974170452168486*003
1.260500124111412/597*003	1.3249974170452168486*003	36	1.406499753102501679*003	37	1.406499753102501679*003
1.3325001173971424992*003	1.406499753102501679*003	37	1.48249875495373841207*003	38	1.48249875495373841207*003
1.40650011121347876202*003	1.48249976786827429510*003	38	1.5049881725122940870*003	39	1.5049881725122940870*003
1.4625001151500862601*003	1.5649977435523447*003	39	1.6419887498611821936*003	40	1.6419887498611821936*003
1.56050010227720570452*003	1.6404997902480203666*003	40	1.722989285932655582*003	41	1.722989285932655582*003
1.64050005333546378706*003	1.72249940249443359*003	41	1.8064989784552623662*003	42	1.8064989784552623662*003
1.7225002079248076880*003	1.80649980953994278565*003	42	1.894990249105677855*003	43	1.894990249105677855*003
1.806500068656/216032*003	1.892499611211252347472*003	43	1.98049906828076308769*003	44	1.98049906828076308769*003
1.94250008263044765*003	1.98499426281342653*003	44	2.07499118812469569*003	45	2.07499118812469569*003
1.9450001052141/4412*003	2.07499118812469569*003	45	2.1624991467517604577*003	46	2.1624991467517604577*003
2.07499118812469569*003	2.1624991467517604577*003	46	2.2564998477517513663640*003	47	2.2564998477517513663640*003
2.16220000723061//1264*003	2.35249985377501725194*003	47	2.45049947327340869*003	48	2.45049947327340869*003
2.26650020692920157374*003	2.35249985377501725194*003	48	2.5524992766395582604*003	49	2.5524992766395582604*003
2.34220000564625029544*003	2.45049947327340869*003	49	2.65249930447327340869*003	50	2.65249930447327340869*003
2.44650000564625029544*003	2.5524992766395582604*003	50	2.5524992766395582604*003	51	2.5524992766395582604*003

PARALATE EIGENVALUES $\mu = 1.20$

		$m = 0$	$m = 1$	$m = 2$	EIGENVALUE	EIGENVALUE	EIGENVALUE
L		4.507283339376950187-001	1	2.2788355376163915326+000	2	6.2017891729191076015+000	6.247538389277421097+001
	1	2.84961085545907920031+000	2	6.60912765599025789283+000	3	2.057920686409012632965+001	2.057920686409012632965+001
	2	6.7386520979079735+000	3	1.2674486667051562525+001	4	3.06281967867304330815+001	3.06281967867304330815+001
	3	1.27426966819026441.150+001	4	6.0694744831390416830+001	5	4.26552549233677133332+001	4.26552549233677133332+001
	4	2.07303733128814980+001	5	3.0703733128814980+001	6	5.667182780767429834+001	5.667182780767429834+001
	5	3.9728553636266786746+001	6	4.2708295157145523545+001	7	7.26827261316393682539+001	7.26827261316393682539+001
	6	4.922595235247763+001	7	5.67112980167441793+001	8	9.0690290141649609157+001	9.0690290141649609157+001
	7	5.6724465016749444+23+001	8	7.2713705619447867459+001	9	1.10695756519270119862+002	1.10695756519270119862+002
P	8	7.27334561564672.987+001	9	6.07143775400828348+001	10	1.326998373568502593+002	1.326998373568502593+002
	9	9.0722756111471507.968+001	10	1.32714362080616857+2+002	11	1.5670296541228649508+002	1.5670296541228649508+002
	10	1.107222441735465+829+002	11	1.567112980167441793+002	12	1.82705416479537592390+002	1.82705416479537592390+002
	11	1.327721871956273+028+002	12	1.567112980167441793+002	13	1.827130410011440177+002	1.827130410011440177+002
	12	1.56721356194889504.952+002	13	1.82713698246035902+002	14	2.4070896001504869+002	2.4070896001504869+002
	13	1.82721356194889504.952+002	14	2.107177222265081886055+002	15	2.4071379616282086868+002	2.4071379616282086868+002
	14	2.107211215354566.192+002	15	2.40714008934713081619+002	16	2.727102652852857119+002	2.727102652852857119+002
	15	2.4072210215354566.192+002	16	2.72712440342989365+002	17	3.067113514575438544+002	3.067113514575438544+002
	16	2.727210215354566.192+002	17	3.0671144034297618055+002	18	3.427112980167441793+002	3.427112980167441793+002
	17	3.06720801202069592455+002	18	3.4271160446490712558+002	19	3.807130410011440177+002	3.807130410011440177+002
	18	3.427720712120682276+002	19	3.80714845572634940+002	20	4.2071379616282086868+002	4.2071379616282086868+002
	19	3.80721356194889504.952+002	20	4.20714846465621431+002	21	4.627147786758005029+002	4.627147786758005029+002
	20	4.2072205845792708235+002	21	4.627196817663479807+002	22	5.067140582646841961+002	5.067140582646841961+002
	21	4.6272205211924176353+002	22	5.0671440342989365+002	23	5.527152141689445754+002	5.527152141689445754+002
	22	5.06720801202069592455+002	23	5.5271536594387190111+002	24	6.00715594843987122863+002	6.00715594843987122863+002
	23	5.527720440374701+002	24	6.0071520619268924596+002	25	6.507159370156134950+002	6.507159370156134950+002
	24	6.0072045578305572062+002	25	6.50715267836016697964+002	26	7.027162391217416102+002	7.027162391217416102+002
	25	6.507203728240525951+002	26	7.027153215743809916+002	27	7.56716508266575930167+002	7.56716508266575930167+002
	26	7.02772034518965774.378+002	27	7.56715370291134747805+002	28	8.127167494629662779399+002	8.127167494629662779399+002
	27	7.56720801202069592455+002	28	8.127152136594387190111+002	29	8.67011696690419296352+002	8.67011696690419296352+002
	28	8.12772034518965774.378+002	29	8.6701160446490712558+002	30	9.3071502619268924596+002	9.3071502619268924596+002
	29	8.670720215354566.192+002	30	9.3071548822107951952+002	31	9.9271340053911638316+002	9.9271340053911638316+002
	30	9.30720263512878649+002	31	9.9271520157634422303+002	32	1.056717501619544283+003	1.056717501619544283+003
	31	9.9272024278649+002	32	1.0567196754175674865+003	33	1.12271764660568578194+003	1.12271764660568578194+003
	32	1.056720215354566.192+002	33	1.122719579547317733+003	34	1.19071773183256821+003	1.19071773183256821+003
	33	1.122720215354566.192+002	34	1.190719600213738459+003	35	1.2607179061059A67+003	1.2607179061059A67+003
	34	1.190720215354566.192+002	35	1.26071542534586256439+003	36	1.33271801988405988456+003	1.33271801988405988456+003
	35	1.190720215354566.192+002	36	1.332719648877317915+003	37	1.40671966691519398+003	1.40671966691519398+003
	36	1.3327201839423287.85+003	37	1.406720174532150+43+003	38	1.48271967546756748853+003	1.48271967546756748853+003
	37	1.406720174532150+43+003	38	1.48271967546756748853+003	39	1.56071969613179287951+003	1.56071969613179287951+003
	38	1.4827201651025384+34+003	39	1.56071969613179287951+003	40	1.6407139149278258617+003	1.6407139149278258617+003
	39	1.560720174532150+43+05+003	40	1.6407197100261779409+003	41	1.7227184665273554838+003	1.7227184665273554838+003
	40	1.6407201493728439+20+003	41	1.722719724829749968+003	42	1.80671853981007945557+003	1.80671853981007945557+003
	41	1.7227201493728439+20+003	42	1.806719366781361331+003	43	1.8927196022209790166+003	1.8927196022209790166+003
	42	1.8067201493728439+20+003	43	1.892719746559545308+003	44	1.980719758350816973+003	1.980719758350816973+003
	43	1.892720129654724103+003	44	1.980719758350816973+003	45	2.07011672103833766053+003	2.07011672103833766053+003
	44	1.98072012308073+003	45	2.070119772833766053+003	46	2.1627188323971793063+003	2.1627188323971793063+003
	45	2.070201812264761201+003	46	2.162719781234245139+003	47	2.25671883234245139+003	2.25671883234245139+003
	46	2.1627201388610+10+003	47	2.2567201388610+10+003	48	2.3527197984192416047+003	2.3527197984192416047+003
	47	2.25672018658675+56+003	48	2.3527197984192416047+003	49	2.450718923357054296+003	2.450718923357054296+003
	48	2.35272014324432+46+003	49	2.4507198653254198+003	50	2.550719056462888032+003	2.550719056462888032+003
	49	2.45072012308073+003	50	2.5507198154731005024+003	51	2.6527190058462888032+003	2.6527190058462888032+003

PROLATE EIGENVALUES $\hbar = 1.40$ $\hbar = 1$

EIGENVALUE

EIGENVALUE

FIGENVALUE

L	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45								
	6.0006441180390651327-001	3.14921925667107511891+000	7.061126094582441976+000	1.301635804217750+456+001	2.099592130352123+001	3.099226345778371290+001	4.29886674121385261487+001	5.29866710401054+123+001	6.29866710401054+123+001	7.297125168597355851+001	8.297752852547112172+002	9.109774032408069519+002	10.1329752852547112172+002	11.1569760168559161673+002	12.1569760168559161673+002	13.162977559433588119071+002	14.162977559433588119071+002	15.1649770464211548295+002	16.1649770464211548295+002	17.16497772573680130827+002	18.1649777975562990930838+002	19.164977819266600542769+002	20.164977819266600542769+002	21.164977819266600542769+002	22.164977819266600542769+002	23.164977819266600542769+002	24.164977819266600542769+002	25.164977819266600542769+002	26.164977819266600542769+002	27.164977819266600542769+002	28.164977819266600542769+002	29.164977819266600542769+002	30.164977819266600542769+002	31.164977819266600542769+002	32.164977819266600542769+002	33.164977819266600542769+002	34.164977819266600542769+002	35.164977819266600542769+002	36.164977819266600542769+002	37.164977819266600542769+002	38.164977819266600542769+002	39.164977819266600542769+002	40.164977819266600542769+002	41.164977819266600542769+002	42.164977819266600542769+002	43.164977819266600542769+002	44.164977819266600542769+002	45.164977819266600542769+002	46.164977819266600542769+002	47.164977819266600542769+002	48.164977819266600542769+002	49.164977819266600542769+002	50.164977819266600542769+002	51.164977819266600542769+002

 $\hbar = 2$

L	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45						
	6.27279642549792184331+000	1.2644873479067534163+001	2.0786044467768282157+001	3.08552723162747607804+001	4.28922147162975220002+001	5.69138308403295+001	6.292956969288275525+001	7.292956969288275525+001	8.292956969288275525+001	9.09398272862129680379+001	10.1094723284086250372+002	11.1329527512193831916+002	12.1569569892457462864+002	13.18296030394947639631+002	14.21096294911057731058+002	15.24096509395677186641+002	16.272968857302473519822+002	17.30696832492734264000+002	18.34296955932381514045+002	19.3809760755903480581+002	20.420971502594859092+002	21.46297228007720647092+002	22.50697295338020562179+002	23.529735422136369397+002	24.60974013656948663+002	25.6597481113656948663+002	26.70297492505416274574+002	27.75697528827383735238+002	28.812975613822589280968+002	29.870975967437111945+002	30.93097617125567216020+002	31.9297641091870n28538+002	32.10569766287019887329+003	33.1297974827320418427+003	34.139097700885214530745+003	35.1460979425264043728+003	36.13329773280911029163+003	37.140697746886810135513+003	38.14829775984202n810294366+003	39.15609771789813n23579+003	40.1640977831374928923+003	41.1722977933774928923+003	42.18069780299422n870626+003	43.18929781195118r173930+003	44.198097966163378528+003	45.2070978281393422538+003	46.216297842316918865+003	47.2256978423169193959+003	48.23529784875080766655+003	49.24509785481052787317+003	50.25509786050605721773+003	51.25509786558753881080+003

 $\hbar = 3$

L	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45								
	6.375324822596612051327-001	7.14921925667107511891+000	8.02519345811044571711+000	9.098413824217750+456+001	1.098413824217750+456+001	2.094628346881817118+001	3.099226345778371290+001	4.29886674121385261487+001	5.29866710401054+123+001	6.29866710401054+123+001	7.297125168597355851+001	8.297752852547112172+002	9.109774032408069519+002	10.1329527512193831916+002	11.1569760168559161673+002	12.1569760168559161673+002	13.162977559433588119071+002	14.162977559433588119071+002	15.1649770464211548295+002	16.1649770464211548295+002	17.16497772573680130827+002	18.1649777975562990930838+002	19.164977819266600542769+002	20.164977819266600542769+002	21.164977819266600542769+002	22.164977819266600542769+002	23.164977819266600542769+002	24.164977819266600542769+002	25.164977819266600542769+002	26.164977819266600542769+002	27.164977819266600542769+002	28.164977819266600542769+002	29.164977819266600542769+002	30.164977819266600542769+002	31.164977819266600542769+002	32.164977819266600542769+002	33.164977819266600542769+002	34.164977819266600542769+002	35.164977819266600542769+002	36.164977819266600542769+002	37.164977819266600542769+002	38.164977819266600542769+002	39.164977819266600542769+002	40.164977819266600542769+002	41.164977819266600542769+002	42.164977819266600542769+002	43.164977819266600542769+002	44.164977819266600542769+002	45.164977819266600542769+002	46.164977819266600542769+002	47.164977819266600542769+002	48.164977819266600542769+002	49.164977819266600542769+002	50.164977819266600542769+002

PROLATE EIGENVALUES M = 1.60

N = 0

EIGENVALUE

L	EIGENVALUE
0	7.66471910441286998e177-001
1	3.401587022678427.67+000
2	7.391252424310P76-30+000
3	1.3330565847e77P46.126+001
4	2.13062566061057e61.38+001
5	3.126267247.78927.722+001
6	4.3262524550663589.06+001
7	5.72886087587463.19+001
8	7.3269909856326304918.001
9	8.12146102605499686.001
10	9.120552056b09.00519.14e+001
11	1.12248304764e11.20+002
12	1.332P401692626P43.29+002
13	1.552423528717.4A9e+002
14	1.8161929C50308413.78e+002
15	2.1282515170.3P06.67+002
16	2.412A215F48236949.37e+002
17	2.732P192F7022086.449+002
18	3.07P172563644.702+002
19	3.432P154C54.649e0.5.96+002
20	3.812P13659452F94.7668.002
21	4.22P125.52323234.405+002
22	4.638P112.52352139.63H.002
23	5.032P10299016054.59+002
24	5.532P195.702064.470.002
25	6.024P87402311.2H.002
26	6.524P87402311.2H.002
27	7.032P7445061573.-H66+002
28	7.57PAC65541054.51.38L+002
29	8.134P64723215.91H.002
30	8.724P64723215.91H.002
31	9.32P65541054.51.38L+002
32	1.0572P928e50.989445474.003
33	1.1232P76730105222+003
34	1.1912P9364324427.056+003
35	1.2612P9364324427.056+003
36	1.3332P9364324427.056+003
37	1.3332P9364324427.056+003
38	1.4083P9364324427.056+003
39	1.5612P79515286687.66025+003
40	1.6412P95365727.5304+003
41	1.7912P804415.05325.762+003
42	1.8412P804415.05325.762+003
43	1.8912P960429514499+003
44	1.9812P961E20565.96599+003
45	2.0712P796348225652827+003
46	2.1632P965C327796153662.1656+003
47	2.2572P9649553015989.003
48	2.3532P79678642198.8498+003
49	2.4512P7969150e667.92255+003
50	2.5512P7970361400296335+003

N = 2

EIGENVALUE

L	EIGENVALUE
1	2.4839944426724486883+000
2	7.071932764156495922+000
3	1.32072024414385350+001
4	3.12374661730169.793442+001
5	4.3261100224217442029.001
6	5.71952985.1042344781+001
7	7.3214987959736844785.001
8	9.1227292457.2995.002+001
9	10.1227292457.2995.002+001
10	11.1227292457.2995.002+001
11	11.3224719.68.00525822+002
12	11.5722P09.01666687965+002
13	11.832559562159710.995+002
14	12.11277933974229956114.002
15	12.412673695213269108.002
16	12.7322996332677221075.002
17	13.07264885084.7000235.002
18	13.432644945365.9174949.002
19	13.8126785133920337283.002
20	14.212990132019277323.002
21	14.632P001580456654014.002
22	15.072P087012689414026.002
23	15.532P016488667785405.002
24	16.012731089619882537.002
25	16.51277911347.68005076.002
26	17.03227437747.62864467.002
27	17.5722P09.0166668229417+002
28	18.1327328645166580450.002
29	18.712P70749867769108+002
30	19.312P04955003458596.002
31	19.932P3595429792125+002
32	20.105272564125013872.003
33	21.1232P789804485137821.003
34	21.1912P761327917450306.003
35	21.6412P771950510059594.003
36	21.73227787283008131397.003
37	21.80727745312059112395.003
38	21.8632P7958952556893.003
39	21.9812P7767713505697951.003
40	22.0712P7778215351516623.003
41	22.1632P796348225652827.003
42	22.2572P796153662.1656+003
43	22.3532P7964480145199867.003
44	22.4512P79653A377825+003
45	22.5512P7970361400296335+003

UNRELATE EIGENVALUES $\lambda = 1.80$		$m = 1$	$m = 2$
L	EIGENVALUE	EIGENVALUE	EIGENVALUE
1	9.4200652 / 4.8031943296+001	2.603214365958704875+000	6.4436107194659755725+000
2	3.8725757013P744-047+000	7.34831473270524396+000	1.3056772797777261405+001
3	7.7861245132561742.579+000	1.352544903599676630+001	2.1301868796719363+001
4	1.3622861826143Y-605+001	2.15688710422504418199+001	3.1416595220003391058+001
5	1.459162861826143Y-369+001	5.15649220003391058+001	4.156240635057238769+001
6	1.4467528405PP882+990+001	4.3595426f72304854102+001	5.75151066978159599+001
7	3.63905985556204909+001	5.7603276525098882010+001	7.35384835982678216+001
8	5.76344479410119123H+001	7.3607446820796723638+001	9.1554670149109447313+001
9	7.34713927042256310354+001	9.1609F687E6102802580+001	1.115677147446467851+002
10	9.1429278644573.5.347+001	1.116175342624661560+002	1.116175342624661560+002
11	1.1626752937587.379+002	1.3363154C9A512291827+002	1.15752674074523191630+002
12	1.33656214761927.016+002	1.573224211622123560+002	1.8388066555785752741+002
13	1.57224742/559577-892+002	1.93650605984010818+002	2.11567723499738414+002
14	1.871240573512134729+002	2.1165726568915561491+002	2.4595849723499738414+002
15	2.116225147237054.877+002	2.416426659552224593+002	2.735987132950052192+002
16	2.736219254620.49+002	2.736670979424403+002	3.357578147509632020+002
17	3.0761079211793562743+002	3.0761079211793562743+002	3.43601556252035+002
18	3.0762145483601285397+002	3.4367388663796108794+002	3.81047950592344887+002
19	3.436221524165662+249+0102	3.816765054074121923+002	4.210625019476014394+002
20	3.916216263561772+74+002	4.2146356351785178756+002	4.63067507398716166+002
21	4.2162175131C73197.222+0102	4.6361F070C78523133756+002	5.0760595074671440+002
22	4.6362155150150314.332+002	5.076123870707806468+002	5.5309550351029095477+002
23	5.0762155150150314.332+002	5.0761238612972805779+002	6.016038916645186750+002
24	5.5213214291P57-528+002	5.07612386135800745+002	6.501113078200785375+002
25	6.156212245602387-084+002	6.5161P63026315943422+002	7.030117896702261901+002
26	6.521213-647860127+0102	7.0368P732169315206748+002	7.5612377044602649+002
27	7.036210465905399+002	7.57615802319921514392+002	8.1236146686376331695+003
28	7.5762147147341201459+002	8.1361P904433901082990+002	8.711337828665842102+002
29	8.136210465905399+002	8.71619776755016258+002	9.3161360693739532777+002
30	8.7162047680164+002	9.316504360420509898+002	9.930141947991356319+002
31	9.316205544273564.364+002	9.9345103712675648800+002	1.057191581579032993+003
32	9.936205542359+35.614+002	1.057191581579032993+003	1.1236146686376331695+003
33	1.05720652135627.479+003	1.1236192077851262234+003	1.196151623603692189+003
34	1.05720652135627.479+003	1.191619252146600699+003	1.2616154315522R403481+003
35	1.191619252146600699+003	1.1916192947184867656+003	1.2616154315522R403481+003
36	1.191619252146600699+003	1.331619329119088987+003	1.4061596308053092+003
37	1.331619329119088987+003	1.40761936F0816609214+003	1.4831616A35n543596+003
38	1.40761936F0816609214+003	1.483161940C54n6803539+003	1.561616312474112538+003
39	1.483161940C54n6803539+003	1.5616194356n2002243+003	1.6416164914100187006+003
40	1.5616194356n2002243+003	1.641619453787830611+003	1.72616658683750627+003
41	1.641619453787830611+003	1.72316194842054442002+003	1.80761642686180944+003
42	1.72316194842054442002+003	1.P061950F2290346483+003	1.89361649592302113947+003
43	1.P061950F2290346483+003	1.8931953C610930583704+003	1.986170945442261268+003
44	1.8931953C610930583704+003	1.9416195514981326165+003	2.07617209643156594+003
45	1.9416195514981326165+003	2.07617209643156594+003	2.1636173393327476120+003
46	2.07617209643156594+003	2.163619542959319924+003	2.25617167502932615489+003
47	2.163619542959319924+003	2.25617167502932615489+003	2.353617554453055078445+003
48	2.25617167502932615489+003	2.353619625077406262+003	2.4561765235679537107+003
49	2.353619625077406262+003	2.4561765235679537107+003	2.553617744494973841892+003
50	2.4561765235679537107+003	2.55361783131153576727+003	2.65361783131153576727+003

DIRECT EIGENVALUES $\mu = 2.0$ $\nu = 1$

EIGENVALUE

L	EIGENVALUE
1	1.127724564845971/-2.44+J0.0
2	4.2811251415557561/0.02+J0.0
3	8.2257135711058591/9.44+J0.0
4	1.41070234205734/0.01+J0.1
5	2.205482571545497/1.92+J0.1
6	4.203526376925297/5.84+J0.01
7	4.402474241063191/0.7+J0.1
8	5.4014756546264/0.01+J0.1
9	7.401414174653F2407/3.4+J0.1
10	9.201125443246774/4.5+J0.01
11	1.120056155521422/0.71+J0.2
12	1.5303646406476194/1.64+J0.2
13	1.57994625539A110614+J0.02
14	1.5994412723534099/2.54+J0.02
15	2.11995164840454684/4.7+J0.02
16	2.4199570296859684/1.71+J0.02
17	2.709942927149299/0.04+J0.02
18	3.07994639529644865/2.14+J0.02
19	3.43097050C47376n45212+J0.02
20	3.41997344740736378851+J0.02
21	4.2199761647407310852+J0.02
22	4.639978131049932968+J0.02
23	5.0799011697848036460+J0.02
24	5.5399813242124797+J0.02
25	6.019888873242124797+J0.02
26	6.5199819157770RA31454+J0.02
27	6.63988904498188389267+J0.02
28	5.539982644394214536198276+J0.02
29	6.719913242124797+J0.02
30	9.3199245399371n5265+J0.02
31	9.93992267427451459+J0.02
32	1.057993563183443106A+J0.03
33	1.1239937480706813A+J0.03
34	1.191991059729816895+J0.03
35	1.261994343374n87019+J0.03
36	1.33994354288303840+J0.03
37	1.407995272619798A+J0.03
38	1.48399526912RA76266+J0.03
39	1.5619950613n4232805+J0.03
40	1.6419957255639A22631+J0.03
41	1.72399592387518861+J0.03
42	1.8079961886574731919+J0.03
43	1.89399295596435112+J0.03
44	1.9819949182n369152+J0.03
45	2.071996145024727373+J0.03
46	2.163997587234220684+J0.03
47	2.16399368227176295+J0.03
48	2.2579959561470199816+J0.03
49	2.3539957428663134827+J0.03
50	2.551992523621636946+J0.03
51	2.653997355H134569534R+J0.03

 $\nu = 2$

EIGENVALUE

L	EIGENVALUE
1	6.54249527439057051176+J0.00
2	1.3299250473782507/0.63+J0.01
3	2.16051130374714851904+J0.01
4	3.17470319A9202158219+J0.01
5	4.38234669749922643837+J0.01
6	5.7869527034295n274743+J0.01
7	7.3899494572247285559+J0.01
8	9.192013580141583254+J0.01
9	1.11934371658426754179+J0.02
10	1.339460629712R664954+J0.02
11	1.57954402315755313+J0.02
12	1.83991034052237874309+J0.02
13	1.92113580141583254+J0.02
14	2.1196622573R6028n+J0.02
15	2.41970544132R8A82694+J0.02
16	2.73974398n0303567895+J0.02
17	3.43979390146246480722667+J0.02
18	3.81981639A9R7R027573+J0.02
19	4.2198329283644684848+J0.02
20	4.6398476164740762271076262+J0.02
21	5.079860127081901070+J0.02
22	5.539873242124797+J0.02
23	6.019888873242124797+J0.02
24	6.5199819157770RA31454+J0.02
25	7.03989964498188389267+J0.02
26	7.57990117432770617R+J0.02
27	8.13991154214536198276+J0.02
28	8.67991154214536198276+J0.02
29	9.3199245399371n5265+J0.02
30	9.93992267427451459+J0.02
31	1.057993563183443106A+J0.03
32	1.1239937480706813A+J0.03
33	1.191991059729816895+J0.03
34	1.261994343374n87019+J0.03
35	1.33994354288303840+J0.03
36	1.407995272619798A+J0.03
37	1.48399526912RA76266+J0.03
38	1.5619950613n4232805+J0.03
39	1.6419957255639A22631+J0.03
40	1.72399592387518861+J0.03
41	1.8079961886574731919+J0.03
42	1.89399295596435112+J0.03
43	1.9819949182n369152+J0.03
44	2.071996145024727373+J0.03
45	2.163997587234220684+J0.03
46	2.25799459561470199816+J0.03
47	2.3539957428663134827+J0.03
48	2.45199140157n5717206R+J0.03
49	2.551992523621636946+J0.03
50	2.653997355H134569534R+J0.03

PRELATE EIGENVALUES M = 2.40					
M = 1			M = 2		
L	EIGENVALUE	F1E1W1UE	L	EIGENVALUE	F1E1W1UE
0	0.02127732501551773741+000	2	6.76466007082181009103+000	2	6.76466007082181009103+000
1	E .342929435056216335+000	3	1.38460244723567665488+001	3	1.38460244723567665488+001
2	9.22016815616591911981+000	4	2.23052730474620716943+001	4	2.23052730474620716943+001
3	9.2596180105011649049+000	5	3.12971317226596350+001	5	3.12971317226596350+001
4	1.5n6128610791492155+001	6	4.46894048805000133326+001	6	4.46894048805000133326+001
5	2.297774598209679141+001	7	5.865358346678896702+001	7	5.865358346678896702+001
6	3.292397429438052+001	8	7.4732391270816821843+001	8	7.4732391270816821843+001
7	4.4923667C78129550212+001	9	9.2757408551423286457+001	9	9.2757408551423286457+001
8	5.891371C6C512549801+001	10	1.1276864067491800137+002	10	1.1276864067491800137+002
9	7.4904492124502270828+001	11	1.3480023682304624867+002	11	1.3480023682304624867+002
10	9.249999365314669220+001	12	1.5881613140885209842+002	12	1.5881613140885209842+002
11	1.128892121856118760314+002	13	1.84825415282720946681+002	13	1.84825415282720946681+002
12	1.34889347681656604479+002	14	2.128380350499066881+002	14	2.128380350499066881+002
13	1.588136309767784886+002	15	2.42878114558624497+002	15	2.42878114558624497+002
14	1.84886741672194042710+002	16	2.7483645798697011+002	16	2.7483645798697011+002
15	2.12884432278922949205+002	17	3.088776353594264081+002	17	3.088776353594264081+002
16	2.4288P37082322013380+002	18	3.4485110825693093193+002	18	3.4485110825693093193+002
17	2.7488844630255905890+002	19	3.828140934133533861+002	19	3.828140934133533861+002
18	3.088862733141997815+002	20	4.228865679275839875+002	20	4.228865679275839875+002
19	3.4488516172818086713+002	21	4.64898722990361207571+002	21	4.64898722990361207571+002
20	3.82886432088110108632+002	22	5.088109847044127975+002	22	5.088109847044127975+002
21	4.2288115631745125993+002	23	5.548822119003861477+002	23	5.548822119003861477+002
22	4.6488616101974478920+002	24	6.028654208867078352+002	24	6.028654208867078352+002
23	5.04886325661159358+002	25	6.52864906808512145697+002	25	6.52864906808512145697+002
24	5.548861521345195699+002	26	7.0488660984305143505+002	26	7.0488660984305143505+002
25	6.02886203957163750+002	27	7.58867926555136493+002	27	7.58867926555136493+002
26	6.5288670561557482469+002	28	8.1488679269688145929+002	28	8.1488679269688145929+002
27	7.048865063073290147+002	29	8.7288673729525121728+002	29	8.7288673729525121728+002
28	7.548863288658737263+002	30	9.32886466381861061538+002	30	9.32886466381861061538+002
29	8.1488616127928141847815+002	31	9.94887012688225645344+002	31	9.94887012688225645344+002
30	8.7288620231252938533+002	32	1.0588607269807500955+003	32	1.0588607269807500955+003
31	9.3288685236972P61754+002	33	1.124871273986255133+003	33	1.124871273986255133+003
32	9.9488617390018491603+002	34	1.124881739308787677+003	34	1.124881739308787677+003
33	1.0588616642276963+003	35	1.26281232059918979+003	35	1.26281232059918979+003
34	1.1248815680664195754+003	36	1.334726529558668717+003	36	1.334726529558668717+003
35	1.1928864783387216109+003	37	1.408873045073125457+003	37	1.408873045073125457+003
36	1.262811256106104610+003	38	1.4848739816188097954+003	38	1.4848739816188097954+003
37	1.33486132054751494710+003	39	1.5628732813281391+003	39	1.5628732813281391+003
38	1.4n8861250559307156+003	40	1.642740354123086556+003	40	1.642740354123086556+003
39	1.562811273376413827+003	41	1.724874319589015796+003	41	1.724874319589015796+003
40	1.6428612722905161938+003	42	1.8088745846069345435+003	42	1.8088745846069345435+003
41	1.72488112211803703163+003	43	1.898748743179129412+003	43	1.898748743179129412+003
42	1.8n886057364r47215320+003	44	1.9828194313185326332+003	44	1.9828194313185326332+003
43	1.8948605293456412957+003	45	2.0728527631466720371+003	45	2.0728527631466720371+003
44	1.94240680071359265+003	46	2.1648754102553567+003	46	2.1648754102553567+003
45	2.0728806492675804240+003	47	2.2588756663100956088+003	47	2.2588756663100956088+003
46	2.164860813198779379+003	48	2.354875843179129412+003	48	2.354875843179129412+003
47	2.258890779288962124+003	49	2.452276009907184620+003	49	2.452276009907184620+003
48	2.35486074745505059874+003	50	2.5528761665748160925+003	50	2.5528761665748160925+003
49	2.45228071754766220278+003	51	2.65467631418931647380+003	51	2.65467631418931647380+003

PROBLÈME		EIGENVALUES		EIGENVALUES		EIGENVALUES	
		M = 1	M = 2	M = 3	M = 4	M = 5	M = 6
L							
1	1.7243734CC46526535>000	1	1.76312666809085381578<000	1	1.76312666809085381578<000	1	1.76312666809085381578<000
2	5.730226329754474115<000	2	6.72502533429117493590<000	2	6.72502533429117493590<000	2	6.72502533429117493590<000
3	9.854113252729989672278<000	3	1.5185C44410088962552<001	3	1.5185C44410088962552<001	3	1.5185C44410088962552<001
4	1.56174947050668273350<001	4	2.3297581075261509935<001	4	2.3297581075261509935<001	4	2.3297581075261509935<001
5	2.350750142456803665217<001	5	3.332915710371100771<001	5	3.332915710371100771<001	5	3.332915710371100771<001
6	3.361122682809373820<001	6	4.5348P352C557161101011<001	6	4.5348P352C557161101011<001	6	4.5348P352C557161101011<001
7	4.543661455535072445983<001	7	9.3577418C4666312406<001	7	9.3577418C4666312406<001	7	9.3577418C4666312406<001
8	9.9215145152848119295<001	8	7.5363r9810239371447<001	8	7.5363r9810239371447<001	8	7.5363r9810239371447<001
9	7.54123664363694051852<001	9	6.336674878492066430<001	9	6.336674878492066430<001	9	6.336674878492066430<001
10	9.3427551038512190521<001	10	1.13365303r87114274108<001	10	1.13365303r87114274108<001	10	1.13365303r87114274108<001
11	1.1340957118855478945<002	11	1.5937174C91129678663<002	11	1.5937174C91129678663<002	11	1.5937174C91129678663<002
12	1.3139744527673674<002	12	1.593725943028744<002	12	1.593725943028744<002	12	1.593725943028744<002
13	1.591947424052622509<002	13	1.593761617010039665<002	13	1.593761617010039665<002	13	1.593761617010039665<002
14	1.85926C656261922086<002	14	2.133745595322854<002	14	2.133745595322854<002	14	2.133745595322854<002
15	2.133745595322854<002	15	2.4337258572125717012<002	15	2.4337258572125717012<002	15	2.4337258572125717012<002
16	2.4537756952730713180<002	16	2.7537753038976137344<002	16	2.7537753038976137344<002	16	2.7537753038976137344<002
17	2.7537753038976137344<002	17	3.0374303508711969<002	17	3.0374303508711969<002	17	3.0374303508711969<002
18	3.038877C01948A905751<002	18	3.45376700183959683657<002	18	3.45376700183959683657<002	18	3.45376700183959683657<002
19	3.45376700183959683657<002	19	3.837732385346779<002	19	3.837732385346779<002	19	3.837732385346779<002
20	3.837732385346779<002	20	4.3377323851340517700<002	20	4.3377323851340517700<002	20	4.3377323851340517700<002
21	4.6537756952730713180<002	21	5.037778367806717424<002	21	5.037778367806717424<002	21	5.037778367806717424<002
22	5.037778367806717424<002	22	5.551777970586497030408<002	22	5.551777970586497030408<002	22	5.551777970586497030408<002
23	5.551777970586497030408<002	23	5.9337980128881629950180<002	23	5.9337980128881629950180<002	23	5.9337980128881629950180<002
24	5.9337980128881629950180<002	24	6.3377323857204772<002	24	6.3377323857204772<002	24	6.3377323857204772<002
25	6.3377323857204772<002	25	6.53379827966903826300<002	25	6.53379827966903826300<002	25	6.53379827966903826300<002
26	6.53379827966903826300<002	26	7.053774829968848719<002	26	7.053774829968848719<002	26	7.053774829968848719<002
27	7.053774829968848719<002	27	7.5937752298511008318<002	27	7.5937752298511008318<002	27	7.5937752298511008318<002
28	7.5937752298511008318<002	28	8.15377625675058A395<002	28	8.15377625675058A395<002	28	8.15377625675058A395<002
29	8.15377625675058A395<002	29	F.733779717591779210653<002	29	F.733779717591779210653<002	29	F.733779717591779210653<002
30	F.733779717591779210653<002	30	S.3337980128881629950180<003	30	S.3337980128881629950180<003	30	S.3337980128881629950180<003
31	S.3337980128881629950180<003	31	S.9537798752053426044<002	31	S.9537798752053426044<002	31	S.9537798752053426044<002
32	S.9537798752053426044<002	32	1.0537789452084666331<003	32	1.0537789452084666331<003	32	1.0537789452084666331<003
33	1.0537789452084666331<003	33	1.12537907621925373<003	33	1.12537907621925373<003	33	1.12537907621925373<003
34	1.12537907621925373<003	34	1.19337908464039473229<003	34	1.19337908464039473229<003	34	1.19337908464039473229<003
35	1.19337908464039473229<003	35	1.2637911418726794922<003	35	1.2637911418726794922<003	35	1.2637911418726794922<003
36	1.2637911418726794922<003	36	1.353379148451951269<003	36	1.353379148451951269<003	36	1.353379148451951269<003
37	1.353379148451951269<003	37	1.403797205005437248<003	37	1.403797205005437248<003	37	1.403797205005437248<003
38	1.403797205005437248<003	38	1.4853792475320134545<003	38	1.4853792475320134545<003	38	1.4853792475320134545<003
39	1.4853792475320134545<003	39	1.563379287426901298A5<003	39	1.563379287426901298A5<003	39	1.563379287426901298A5<003
40	1.563379287426901298A5<003	40	1.643379323283830192700<003	40	1.643379323283830192700<003	40	1.643379323283830192700<003
41	1.643379323283830192700<003	41	1.72537973524734647697<003	41	1.72537973524734647697<003	41	1.72537973524734647697<003
42	1.72537973524734647697<003	42	1.8093793848389726314<003	42	1.8093793848389726314<003	42	1.8093793848389726314<003
43	1.8093793848389726314<003	43	1.9953794128988521499<003	43	1.9953794128988521499<003	43	1.9953794128988521499<003
44	1.9953794128988521499<003	44	2.0833794350279207685<003	44	2.0833794350279207685<003	44	2.0833794350279207685<003
45	2.0833794350279207685<003	45	2.103379461532644655<003	45	2.103379461532644655<003	45	2.103379461532644655<003
46	2.103379461532644655<003	46	2.1653794864459024526<003	46	2.1653794864459024526<003	46	2.1653794864459024526<003
47	2.1653794864459024526<003	47	2.25337950790121765650<003	47	2.25337950790121765650<003	47	2.25337950790121765650<003
48	2.25337950790121765650<003	48	2.3553795167030136300<003	48	2.3553795167030136300<003	48	2.3553795167030136300<003
49	2.3553795167030136300<003	49	2.4533795446971882895500<003	49	2.4533795446971882895500<003	49	2.4533795446971882895500<003
50	2.4533795446971882895500<003	50	2.5533795678345386800<003	50	2.5533795678345386800<003	50	2.5533795678345386800<003

PROLATE EIGENVALUES $\mu = 3.00$		
$m = r$	EIGENVALUE	EIGENVALUE
L	2.1367322261613131907+0000	7.1511005249166207194+000
1	6.820883286637815740+000	7.1511005249166207194+000
2	1.1195366276244917+001	1.162778213755425811+001
3	1.688530220195794985+001	2.3587933318128495909+001
4	2.4705346301467324987+001	3.33615107027332634+001
5	3.4631260798515417836+001	4.611659353292145n30+001
6	4.659112749485176569+001	6.02205506638154453132+001
7	6.0561635604952951267+001	7.0286910635645+836156+001
8	7.655215694708552+001	7.0286910635645+836156+001
9	9.4544944770722491191+001	9.1331852162947320501+001
10	1.1453810275868280+002	1.143637803694333329+002
11	1.3658051953298603942+002	1.3387318657539337725+002
12	1.6053271686159294993+002	1.6047519162967098697+002
13	1.865212833536867137+002	1.864619094397494312078+002
14	2.1451567295691367+002	2.1443012877114n198865+002
15	2.44513507673915183+002	2.444390372480n19929n+002
16	2.7651352441016021275+002	2.7644631355967215305+002
17	3.10120197361862945+002	3.104574286241555453+002
18	3.465107767562847279+002	3.0846177895301320558+002
19	3.8450667707102956256+002	3.845063509445167+002
20	4.2450574295265890284+002	4.244967713485676+002
21	4.665519499164219185+002	4.66480284830986+002
22	5.10507251630301703876+002	5.104982848961348348+002
23	5.565466453321220939+002	5.56473790945176214+002
24	6.045611205342913821+002	6.044759042497123554n+002
25	6.5450564061768612934+002	6.5447771348535n39640R+002
26	7.05552171475343837+002	7.061942905025865384+002
27	7.6050164784012132933+002	7.604800762657455452+002
28	8.1659894250631991472+002	8.1648223203465193144+002
29	8.7449545127605477089+002	8.7448343022757729504+002
30	9.3451925060010021093+002	9.3448449795654332193+002
31	9.845016242095123+002	9.96485471446331517527+002
32	1.06053468254567664+003	1.060487161912389374+003
33	1.1266592383845675012+003	1.126487161912389374+003
34	1.1944692824260956622+003	1.19448789843754831731+003
35	1.26445932741874377+003	1.26448857327335433930+003
36	1.3366493557418773325+003	1.33664919613291941628n+003
37	1.410459392809976432+003	1.410459392809976432+003
38	1.4845942516792887166+003	1.4845942516792887166+003
39	1.5644594517105429326+003	1.5644594517105429326+003
40	1.64445948102886355531+003	1.64445948102886355531+003
41	1.7264595059462916n23+003	1.7264595059462916n23+003
42	1.8105022651201492382+003	1.8105022651201492382+003
43	1.8964595056724673644+003	1.8964595056724673644+003
44	1.98445957078597014+003	1.98445957078597014+003
45	2.07445955758710047+003	2.07445955758710047+003
46	2.166459601551044267+003	2.166459601551044267+003
47	2.1664596236276327429+003	2.1664596236276327429+003
48	2.2605016219663155808+003	2.2605016219663155808+003
49	2.45449413410505428+003	2.45449413410505428+003
50	2.554493645607413787+003	2.554493645607413787+003
51	2.654494595170281227963+003	2.654494595170281227963+003

PRBLATE EIGENVALUES $W = 3.20$

$n = 0$	$H = 1$		$H = 2$	
	EIGENVALUE		EIGENVALUE	
L	3.67664328644100383355+000	2	7.29204202445992417663+000	2
1	1.0001699620942442427+001	3	1.51921258182103746522+001	3
2	1.6818295307867569095+001	4	2.4072902471797697041+001	4
3	2.502600396666036563+001	5	3.44790952268687443723+001	5
4	3.507803530964262522+001	6	4.668653832254053876+001	6
5	4.7096060617199456+001	7	6.0805884744832511294+001	7
6	6.11043305091156296762+001	8	7.688165953206754872+001	8
7	7.71089030040599137+001	9	9.4931910798619604431966+001	9
8	9.51116962691239527072+001	10	1.1496784241349369545+002	10
9	1.1511353335418968115+002	11	1.3699426765613845542+002	11
10	1.3711480919875334232+002	12	1.6101429594421997204+002	12
11	1.6115552969630375459879088+002	13	1.87029853185762244622+002	13
12	1.87116427752812208875+002	14	2.15042186888130935515+002	14
13	2.151169613280285793+002	15	2.450521354515898748081+002	15
14	2.4511738161458629292+002	16	2.77062979880493137425+002	16
15	2.7711778555196376986303+002	17	3.1106703375459879088+002	17
16	3.1111799302745310050+002	18	3.4707269779493959311+002	18
17	3.47118220183731731+002	19	3.850749588179459149+002	19
18	3.8511841073232173521+002	20	4.25081596278143332786+002	20
19	4.251185714927862972+002	21	4.67085128561509629759+002	21
20	4.67118708114101672408+002	22	5.11088193376985534336+002	22
21	5.11118826821908514000+002	23	5.5709869965100477856+002	23
22	5.5711892243916069109+002	24	6.05093221451067449427+002	24
23	6.05119018665918807902+002	25	6.5505298469835039395+002	25
24	6.5511907218285337013+002	26	7.0709714232260086437+002	26
25	7.0711916660908271298+002	27	7.6109878669973043826+002	27
26	7.6111922294218616974+002	28	8.17100259431242047665+002	28
27	8.1711928318462561794+002	29	8.75101583668290611075+002	29
28	8.751193322966748893+002	30	9.3510277870737260613+002	30
29	9.35119376728653461623+002	31	9.971038608975905946+002	31
30	9.97119416726954337712+002	32	1.06110484403099195603+003	32
31	1.061119453862750+002	33	1.1271053985018259623+003	33
32	1.0611194528742750+002	34	1.195106584349997594+003	34
33	1.1271240677763821985+003	35	1.26510730836795720672+003	35
34	1.19512455154956020+002	36	1.337107241046569478+003	36
35	1.245122487522122681+002	37	1.411111156830323348+003	37
36	1.33711958857967211262+003	38	1.48710921646555263874+003	38
37	1.4111195971699111486+003	39	1.56510975750700564125+003	39
38	1.48711961303179617423+003	40	1.645102582742693956+003	40
39	1.56511951594362908228+003	41	1.7271107241046569478+003	41
40	1.6451196091995838223+003	42	1.8111111568303399659+003	42
41	1.72711966780087684115+003	43	1.8971115699798349201+003	43
42	1.81111966814807919295+003	44	1.98511193607336373708+003	44
43	1.8971196807145153192+003	45	2.0751122875920795342+003	45
44	1.98511971167185465100+003	46	2.167112616598041367+003	46
45	2.0751197236996352908+003	47	2.26111292497485057398+003	47
46	2.1671197624415261128+003	48	2.35711975179353604613+003	48
47	2.2611122121166927201+003	49	2.455119765877451631+003	49
48	2.3551137424076058246+003	50	2.65711398357330474490+003	50
49	2.455119762423242+003	51	2.6571139835733047351375+003	51

PHGLAITE EIGENVALUES M = 3.40		M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	2.1551714468793704b6341e000	1	3.85261930101133567102e000	2	7.43823234840080215958e000
1	7.98304982143296097e000	2	1.04653934718563902187e001	3	1.55737813881375039423e001
2	1.27183303971615575824e001	3	1.743217588474205743e001	4	2.45871878880236140318e001
3	2.83817905361505054694e001	4	2.568532755487918626e001	5	3.50568128890665267404e001
4	2.91063860013439328472e001	5	3.57448231476236078323e001	6	4.7294542248377942704e001
5	3.598347971907424014e001	6	4.7762763367123989379e001	7	6.1429928402672506813e001
6	4.79211184776746978202e001	7	6.17700735758722975887e001	8	7.751488090569254546e001
7	6.1684233553912393952e001	8	7.77367087636679395e001	9	9.5571524546036304087e001
8	7.746532191114866104e001	9	9.577566445164782933e001	10	1.156116203031119099e002
9	9.584386304645874391e001	10	1.157768663805183297e002	11	1.37777638900082147988e002
10	1.156320275025776944e002	11	1.37777638900082147988e002	12	1.61663270885118483e002
11	1.37623219871421469927e002	12	1.61778161708803750e002	13	1.8768052103205035270e002
12	1.61616483765974443e002	13	1.87785290065539334e002	14	2.15694179752638316963e002
13	1.4781121427408507e002	14	2.15778797007637949e002	15	2.4570518600282955696e002
14	2.1580701286190288109e002	15	2.4577899789260637961e002	16	2.7771418900615432710e002
15	2.45803608560190765e002	16	2.777791521574214649e002	17	3.1172164976797790060e002
16	2.77900810702095721e002	17	3.117797273093875290536e002	18	3.4772790328019864810e002
17	3.11798484045274b8342e002	18	3.47779369625648714e002	19	3.8573319786741183688e002
18	3.4779652735204943871e002	19	3.8577944789554082022e002	20	4.25737720873004011427e002
19	3.85734866194102647e2e002	20	4.257795122332073891e002	21	4.6774161585091467727e002
20	4.2579344388102054859e2e002	21	4.67779565577161085019e002	22	5.117449943340589843e002
21	4.67792161080215865e002	22	5.117796490538297661e002	23	5.57747944089436192059e002
22	5.1179121503620665e3e002	23	5.577796490538297661e002	24	6.057503492046017466e002
23	5.5779021791452421249e002	24	6.0577968183024001194e002	25	6.5575282295483148443e002
24	c.05789397844018607e002	25	6.5577971013078607506e002	26	7.07754853736068289634e002
25	c.057896728e21525748e002	26	7.07779734253452008e002	27	7.6177975630375059428e002
26	7.077802866650340e7e002	27	7.617797752729717634e002	28	8.17758286067837346758e002
27	7.617874537600u944203e002	28	8.177797752729717634e002	29	8.7575974390021407399e002
28	c.17786938551385018e002	29	8.7577979202777903613e002	30	9.35761059387742769634e002
29	c.757864749e014017020e002	30	9.357798072807417722e002	31	9.977798023969495544e002
30	9.357860532645762e002	31	9.977798699417274080e003	32	1.0617633325009393407e003
31	9.7778656716401156344e002	32	1.061779832394960230816e003	33	1.1277643183517919391e003
32	1.33778422561583e003	33	1.1277834204136814e003	34	1.1957652190345107153e003
33	1.061785018220d641248e003	34	1.1957798529738132e003	35	1.26576044820227489326e003
34	1.192784731160720423e003	35	1.26577986186041148345e003	36	1.33776680204764152176e003
35	1.26578447680011513e003	36	1.3377798699417274080e003	37	1.411764997101970235e003
36	1.33778422561583e003	37	1.41177987732702231949e003	38	1.487768143059877884e003
37	1.4117840324203e003	38	1.487779840863119213e003	39	1.5577798902975796384e003
38	1.487783797262612e14e003	39	1.5577798902975796384e003	40	1.645762899520131592e003
39	1.5657836076304315422e003	40	1.6457798960316795156e003	41	1.7277799012668905192e003
40	1.6457831621759e003	41	1.7277799012668905192e003	42	1.81177990613564317206e003
41	1.727783267935e4270e4e003	42	1.81177990613564317206e003	43	1.897779910622717473e003
42	2.811783115364198526e003	43	1.897779910622717473e003	44	1.985771347662312789e003
43	2.9577993191435019e003	44	1.9857799148862401859e003	45	2.0757715213405936826e003
44	3.19577984156e-1e003	45	2.075779918717754005e003	46	2.1677718831613732396e003
45	2.07577927173e1159e-1e003	46	2.1677799224196975306e003	47	2.26177922222292740e003
46	2.167782602794e-1e01e003	47	2.2617799258435075358e003	48	2.3577799299883457885e003
47	2.261782493627e1e01e003	48	2.4557799299883457885e003	49	2.455772839617646547e003
48	2.3577799299883457885e003	49	2.45577993191435019e003	50	2.5557731216326410822e003
49	2.4557799347910029959e003	50	2.55577338634548938322e003	51	2.65777338634548938322e003

PROBLATE EIGENVALUES H = 3.80		H = 1		H = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	2.96580102291963611003+000	1	1.21459305743263925299+000	2	7.74455647496324956814+000
1	9.1913201380/064341486/+000	2	1.14404383201424234980+001	3	1.638514004790/0799931+001
2	1.4408161287985409505+001	3	1.67570817812464046451+001	4	2.5698275072240409565+001
3	2.0102603765822142334+001	4	2.71285255981590926254+001	5	3.631568907279332034127+001
4	2.771216801988624+001	5	3.720827801988624283061+001	6	4.86623540449723666095+001
5	3.75239385308430355093+001	6	4.92286594865280626118+001	7	6.27947299591027088503+001
6	4.9429789584696994942+001	7	6.3228684780974992363+001	8	7.8990178735993436274+001
7	6.3374674441925/647844+001	8	7.9228958063047056983+001	9	9.69700278901911206643+001
8	7.9339051983030411794+001	9	9.7228303306710814707+001	10	1.17018874467826492873+002
9	9.73146633892010396+001	10	1.1722743445538450+002	11	1.390470684473873270+002
10	1.172979763118288126751+002	11	1.3922658091243026547+002	12	1.6308126412038839224+002
11	1.39284024923813653038+002	12	1.63225812469905817703+002	13	1.89109537799362013+002
12	1.6327403668430499059+002	13	1.89225142979506491613+002	14	2.17118308152920675906+002
13	1.89266622754735619860+002	14	2.172240730354009950+002	15	2.47134458838585875034+002
14	2.172600026920150422+002	15	2.47224073039327516221+002	16	2.7914217538940932023+002
15	2.4725499386671270414+002	16	2.79223649188779862385+002	17	3.13151045594790653701+002
16	2.7925081560156/09831+002	17	3.132232843508676242487+002	18	3.4915873729009729919+002
17	3.132243892991889981+002	18	3.49222969018617547910+002	19	3.87164755690161006525+002
18	3.492444709831624758+002	19	3.87522695226567539495+002	20	4.271016993966337725+002
19	3.8724210956401343206+002	20	4.27222455358929768337+002	21	4.69174730037146749970+002
20	4.27239066950/93728+002	21	4.692222269886013936467+002	22	5.1311672849630872222+002
21	4.69238887374208773065+002	22	5.13222062615120730875+002	23	5.5918221735421941776+002
22	5.132365036516104968+002	23	5.5922189953904771437+002	24	6.07188280012513606233+002
23	5.592325127749711226770+002	24	6.072221754686674544373+002	25	6.5798324663626432+002
24	6.0723391354379388726+002	25	6.57221625502090642160+002	26	7.09190381643811087909+002
25	6.5723284002414/78063+002	26	7.0922150985058936679+002	27	7.631921963306478216+002
26	7.0923166624440675168+002	27	7.63221405938518924054+002	28	8.1919433343539774684+002
27	7.632310590309870294+002	28	8.19221312257242453904+002	29	8.7719633202379397+002
28	8.19230272145138243925+002	29	9.377221227521405858343+002	30	9.371970492677010668+002
29	8.772295857929726347+002	30	9.37221150646311964912+002	31	9.99199049775203765+002
30	9.37228866053114227828+002	31	9.9922108069919817070+002	32	1.0632201688015980307+003
31	9.992284034612208+002	32	1.06322101688015980307+003	33	1.129220154704562578263+003
32	1.0632287842402/22829+003	33	1.12922095850374976495+003	34	1.5627057543202192617+003
33	1.1292242908432342656+003	34	1.1972209497145873164+003	35	1.26720358077682575175+003
34	1.1972270386954380044+003	35	1.2672208557624611299+003	36	1.339204735744023904+003
35	1.26722661464003024+003	36	1.3392208104059396861+003	37	1.41320529535216895+003
36	1.339226251689482249+003	37	1.413220616469760214693+003	38	1.489220608807997+003
37	1.4132259560938/882976+003	38	1.48922072988927417302+003	39	1.5627057543202192617+003
38	1.48922562077308976+003	39	1.5672206940296153599+003	40	1.6472035806571536+003
39	1.567225306232386682+003	40	1.6472206607169023931+003	41	1.72922062997002317423+003
40	1.647225019/9638813793+003	41	1.813220608807997+003	42	1.81320856644722123955+003
41	1.72922483702652837+003	42	1.813220608807997+003	43	1.89922057395062913944+003
42	1.813224612807022336+003	43	1.89922057395062913944+003	44	1.9872095752385786296+003
43	1.8992244022120178072+003	44	1.9872205487804451172+003	45	2.072203020506656841+003
44	1.9872220206553134371522+003	45	2.07722052522798286158+003	46	2.16921456019455013+003
45	2.07722402368473847+003	46	2.16922050615233744521+003	47	2.26321085506100019981+003
46	2.1692228522140572949+003	47	2.1692204824304530487+003	48	2.3592211229573675433+003
47	2.2632233389157185823+003	48	2.35922046296191405943+003	49	2.4572219126839332335+003
48	2.35922215766888988154+003	49	2.4572204446277825111+003	50	2.55722042730600671687+003
49	2.45722042730600671687+003	50	2.5572204222466076917672+003	51	2.65921222466076917672+003

PROLATE EIGENVALUES H = 4.00					
H = 1			H = 2		
EIGENVALUE		EIGENVALUE			
0	3.172067422974e0	97178e000	1	4.3995930671655061046e+000	2
1	9.81294584058885922243e000	2	1.194871926380235199217e-001	3	1.68129585075664979275e+001
2	1.530629399161890920295e+001	3	1.94293486618161108303e+001	4	3.699260539866301810e+001
3	2.1048960644428e521947e001	4	2.79108816515852959802e+001	5	4.934422283369720643e+001
4	2.855685473e673102520e+001	5	3.800563e2033554609182e+001	6	7.6293250847500847e+001
5	3.836717916971e37410e+001	6	5.002143812814e05099034e+001	7	9.353577535487769923e+001
6	5.02526975721e35879e+001	7	6.4022298640e30492659e+001	8	7.965248223232463e31374e+001
7	6.416615797410889025e+001	8	8.00200262670794904112e+001	9	9.727924e08189408544e+001
8	8.043234905254e201767e+001	9	9.80174267161923839222e+001	10	1.177826437819265885e+002
9	9.81138935867242828802e+001	10	1.1801504493828663406e+002	11	1.398214145806423970e+002
10	1.18092367226533503e+002	11	1.40013005945e7390527e+002	12	1.63850513728941086070e+002
11	1.4060769354e148e272152e+002	12	1.64011302989760419801e+002	13	1.897294624230668783e+002
12	1.6406455562684e72735e+002	13	1.900988638784986239e+002	14	2.1789026509111936097e+002
13	1.900595262967430986236e+002	14	2.180087027253553812618e+002	15	2.47904816678169328990e+002
14	2.1810050674616543248883e+002	15	2.4800689038535756443e+002	16	2.79916389720538622778e+002
15	2.480042019056793595e+002	16	2.8000689038535756443e+002	17	3.1392595593589358255e+002
16	2.800370377e225533503e+002	17	3.14006152511827483031e+002	18	3.4993395655717583196e+002
17	3.140324945291e2352524e+002	18	3.50005542266771698470e+002	19	3.8794071821712764130e+002
18	3.502941119350e393205e+002	19	3.88001787237220378e+002	20	4.279464856914156257e+002
19	3.84026454207e453626e+002	20	4.28004561626317282111e+002	21	4.699514476935052056e+002
20	4.28023925e4320942965e+002	21	4.7000416384e45421965e+002	22	5.1395574319230339033e+002
21	4.70022138223740889196e+002	22	5.1400381514780452157e+002	23	5.5995941515009108411e+002
22	5.14016190404e49148429e+002	23	5.60005019079772381116e+002	24	6.079627080867285278896e+002
23	5.600181810e3949e039018e+002	24	6.08003235901841162118e+002	25	6.5976568354148186022e+002
24	6.001616216e267e257782e+002	25	6.580029900123158737e+002	26	7.0996826094085541088e+002
25	6.560154314e412e679491e+002	26	7.100027780033088683e+002	27	7.639705250879743031e+002
26	7.1001404851e8056629502e+002	27	7.64003834333689766e+002	28	8.199726052710715746386e+002
27	7.640032029470e177794e+002	28	8.20002410000000000000e+002	29	8.7797450508645567308e+002
28	8.2001235510e5134394e+002	29	8.780022524896434363e+002	30	9.379761516613903152e+002
29	9.380021102225e2354904e+002	30	9.3800211022252354904e+002	31	9.99776213606120408e+002
30	9.380170195187304e+003	31	1.0000010886303158909e+003	32	1.06397898824303458023e+003
31	1.06400186827108561565e+003	32	1.06400186827108561565e+003	33	1.1299805612928861e+003
32	1.06400186827108561565e+003	33	1.1300714748838494053e+003	34	1.197981379972399951e+003
33	1.1300714748838494053e+003	34	1.19800156510676680673e+003	35	1.267984245179497048e+003
34	1.19800156510676680673e+003	35	1.26800156510676680673e+003	36	1.399793d37212758229099e+003
35	1.26800156510676680673e+003	36	1.34000148191191521992e+003	37	1.413985748597393436e+003
36	1.34000148191191521992e+003	37	1.4140014090119953572e+003	38	1.48998505299019066143e+003
37	1.4140014090119953572e+003	38	1.490001333714e0613633e+003	39	1.5679858131601672615e+003
38	1.490001333714e0613633e+003	39	1.5800012677849416988e+003	40	1.6479865198369948676e+003
39	1.5800012677849416988e+003	40	1.6480012066077385191e+003	41	1.7299871561217195207e+003
40	1.73000114973882386939e+003	41	1.813987758955877251e+003	42	2.2639902049436416977e+003
41	1.81400109678437515703e+003	42	1.81400109678437515703e+003	43	2.35999061062789920746e+003
42	1.81400109678437515703e+003	43	1.90000104394e003990e+003	44	1.98798888858303377122e+003
43	1.90000104394e003990e+003	44	1.9880010425703392085e+003	45	2.077989459614626540e+003
44	1.9880010425703392085e+003	45	2.0780009809367634762e+003	46	2.169989182070981047e+003
45	2.0780009809367634762e+003	46	2.1700009176543965743e+003	47	2.2639902049436416977e+003
46	2.1700009176543965743e+003	47	2.264000877165832227e+003	48	2.36000847038047744703e+003
47	2.264000877165832227e+003	48	2.45800084555880465071e+003	49	2.5579991342246467053e+003
48	2.45800084555880465071e+003	49	2.5580007769875717441e+003	50	2.6599916735584742053e+003

PROLATE EIGENVALUES M = 4,20

M = 0		EIGENVALUE	
L	U	L	U
0	3.577750613286432481+000	1	4,586716455387953326367+000
1	1.0424646184329797061868+001	2	1.2468899384333128818+001
2	1.6251943402962534+001	3	2.0201832716280609356+001
3	2.2051504132154171523+001	4	2.8735818293179270665+001
4	2.953816275295487017+001	5	3.8847141556850471335+001
5	3.926039779186376858+001	6	5.0861813516192873582+001
6	5.1122186786062775815+001	7	6.485907936168966362+001
7	6.504230758545344931+001	8	8.0853774764453321161+001
8	8.091003227934944912+001	9	9.884873981564102874+001
9	9.495583391521472062+001	10	1.18844737504913561+002
10	1.1430594568220550847+002	11	1.408409680569104294+002
11	1.409118377951730251+002	12	1.6483810396133745881+002
12	1.648975042297489866+002	13	1.90835755282270587+002
13	1.9862975482942791+002	14	2.1883381612845380421+002
14	2.1987736627249022165+002	15	2.488322027892206591+002
15	2.488701313326/28122+002	16	2.80830475094427607+002
16	2.8086418745834235260+002	17	3.148297021908347638+002
17	3.148592432930524+002	18	3.50828753229595952+002
18	3.5085538877857822050612+002	19	3.888278864082038000+002
19	3.885155972245+84340+002	20	4.2882716166551524320+002
20	4.28853920294134812+002	21	4.706265309164748281+002
21	4.708459332246995152+002	22	5.1482597960659595995+002
22	5.14825932246995152+002	23	5.608254937615321395+002
23	5.6084168927793207506+002	24	6.088250646097287588+002
24	6.08839994820532276025+002	25	6.5882468350470099139+002
25	6.5884358416497240039+002	26	7.1078625159635423210+002
26	7.1084370414222<37722+002	27	7.648240390043186215+002
27	7.648459332246995152+002	28	8.0279088077356899194+002
28	8.028436901906144+002	29	8.7879284477824604597+002
29	8.78823518252746517661+002	30	9.3879461590437720354+002
30	9.3882394662470258862+002	31	1.0007962868455708346+003
31	1.00082309157911466589+003	32	1.0647976738603963918+003
32	1.064822906570079963+003	33	1.1307989990660268415+003
33	1.1308227377738637708+003	34	1.1988002093718858843+003
34	1.1988219758437848631+003	35	1.2688013377203804646+003
35	1.26882441889248163+003	36	1.340802334277370+003
36	1.34082231058872349174+003	37	1.4148032771759249133+003
37	1.414821901609432692+003	38	1.4908041354579115381+003
38	1.4908207879428678+003	39	1.5688049384891720996+003
39	1.5688219758437848631+003	40	1.6488056336858980+003
40	1.6488218802614742472+003	41	1.730806359577059714+003
41	1.7308217914322105939+003	42	1.814821369477667450+003
42	1.8148217903693096288+003	43	1.90880160745924180+003
43	1.908821631624412350599+003	44	2.0788086639890055397+003
44	1.9888215560458467061+003	45	2.1708091486361453245+003
45	2.0788214922396934625+003	46	2.170821422137931890+003
46	2.170821257484250+003	47	2.264809608094535050+003
47	2.264821369477667450+003	48	2.3608213135310521106+003
48	2.458810495053472579+003	49	2.5588108663115438065+003
49	2.5588212670690540728+003	50	2.5588108663115438065+003
50	2.558812121783836308349+003	51	2.660811116126708009681+003

PROBLATE EIGENVALUES H = 4.40

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M = J		EIGENVALUE		EIGENVALUE		EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	M = 1	L	M = 2	L	M = 1	L	M = 2	L	M = 1	L	M = 2
1	3.22859551177/-<4936594000	1	4.775624802288950805447*000	2	8.232875440386682955444*000	2	8.232875440386682955444*000	3	1.7558709288956211*001	3	1.7558709288956211*001
2	1.10457294267/3352001	2	1.299696234070532667263*001	3	2.096511678635241257595757*001	4	2.15680518441257595757*001	5	2.95996906620248791248*001	5	3.845775778826553398*001
3	2.3108886782508/98475*001	4	2.95996906620248791248*001	5	3.97330328888510695277*001	6	5.09888210259545168838*001	6	6.5135833010777153459*001	7	8.1279706844194129706*001
4	3.0537600477555256217*001	5	5.1746622905527243429*001	6	6.5739610084415078746*001	7	8.1730514427473731025*001	8	9.3684381496661499923*001	9	9.3684381496661499923*001
5	4.0204894271943*001	6	6.2035652046661465214*001	7	6.5739610084415078746*001	8	8.1730514427473731025*001	9	9.3684381496661499923*001	10	1.19431249344920740979*002
6	5.1943736410912852*001	8	8.1730514427473731025*001	9	9.972500863555759924*001	10	1.19431249344920740979*002	11	1.4176445265154365282*002	12	1.9153597675387325591*002
7	6.5943736410912852*001	10	1.19431249344920740979*002	11	1.417106369815533232248*002	12	1.6570635853805888109*002	13	2.19556254565858530337*002	14	2.19556254565858530337*002
8	8.148276205454*0699*001	11	1.19431249344920740979*002	12	1.6570635853805888109*002	13	2.19556254565858530337*002	14	2.4957247806995353496*002	15	2.4957247806995353496*002
9	9.941016961598/9177*001	10	1.19431249344920740979*002	11	2.4969765471436101144*002	16	2.81856714206038*8042*002	17	3.15596552007600249608*002	18	3.510563516328638035*002
10	1.1981107782630438686*002	11	1.19431249344920740979*002	12	2.81695674949204957040*002	17	3.15596552007600249608*002	18	3.510563516328638035*002	19	3.89613299246723412525*002
11	1.417886361611*02256*002	12	1.19431249344920740979*002	13	3.15694004624203855001*002	18	3.89613299246723412525*002	19	4.29618237982670048*002	20	4.29618237982670048*002
12	2.657718434474<262177*002	13	2.19556254565858530337*002	14	2.9968721801001138016*002	15	2.9968721801001138016*002	16	2.9968721801001138016*002	17	3.15596552007600249608*002
13	2.9271758597149105002	14	2.19556254565858530337*002	15	2.9968721801001138016*002	16	2.9968721801001138016*002	17	3.15596552007600249608*002	18	3.510563516328638035*002
14	2.197479742168/513821*002	15	2.19556254565858530337*002	16	3.15694004624203855001*002	17	3.15596552007600249608*002	18	3.510563516328638035*002	19	3.89613299246723412525*002
15	2.949739991552103951*002	16	3.15694004624203855001*002	17	3.15694004624203855001*002	18	3.510563516328638035*002	19	3.89613299246723412525*002	20	4.29618237982670048*002
16	2.9173235611960620518*002	17	3.15694004624203855001*002	18	3.510563516328638035*002	19	3.89613299246723412525*002	20	4.29618237982670048*002	21	4.7162543499642528841*002
17	3.157264930905084*002	18	3.510563516328638035*002	19	3.89613299246723412525*002	20	4.29618237982670048*002	21	5.1563028466442528841*002	22	5.61687901347662264998*002
18	5.2172157301813440*002	19	5.8969136573865369429*002	20	5.9968721801001138016*002	21	6.596867316398783238*002	22	6.5964149724169000485*002	23	6.5964149724169000485*002
19	5.8971392644050840*002	20	4.2969765471436101144*002	21	7.1689401116750123688*002	22	7.655858022973797112*002	23	8.21649287980295890663*002	24	8.7965132660817205901*002
20	4.297138136363*259101*002	21	4.71689401116750123688*002	22	5.61687901347662264998*002	23	6.19382267434697416*002	24	6.5964149724169000485*002	25	6.5964149724169000485*002
21	4.712072571275961275961*002	22	5.61687901347662264998*002	23	6.0968721816398783238*002	24	6.0968721816398783238*002	25	6.5964149724169000485*002	26	7.1644396253317728222*002
22	5.157080425001*2442*002	23	5.61687901347662264998*002	24	6.0968721816398783238*002	25	6.596867316398783238*002	26	7.655858022973797112*002	27	7.655858022973797112*002
23	5.617056372191534964*002	24	6.0968721816398783238*002	25	6.596867316398783238*002	26	6.596867316398783238*002	27	6.596867316398783238*002	28	8.7965132660817205901*002
24	6.497036344674050840*002	25	6.596867316398783238*002	26	6.596867316398783238*002	27	6.596867316398783238*002	28	8.7965132660817205901*002	29	8.7965132660817205901*002
25	6.59701810612743275961*002	26	7.1689401116750123688*002	27	7.655858022973797112*002	28	8.7965132660817205901*002	29	9.3965323509860245068*002	30	9.3965323509860245068*002
26	7.1170019279183*403617*002	27	7.655858022973797112*002	28	8.7965132660817205901*002	29	9.3965323509860245068*002	30	9.3965323509860245068*002	31	1.00656424124672988*002
27	7.65698744245/4251646*002	28	8.7965132660817205901*002	29	9.3965323509860245068*002	30	9.3965323509860245068*002	31	1.00656424124672988*002	32	1.00656424124672988*002
28	8.216540784275870496*002	29	8.7965132660817205901*002	30	9.3965323509860245068*002	31	1.00656424124672988*002	32	1.00656424124672988*002	33	1.131657860527370157*003
29	8.21697443219350270190*002	30	9.3965323509860245068*002	31	1.131657860527370157*003	32	1.131657860527370157*003	33	1.131657860527370157*003	34	1.131657860527370157*003
30	8.7969628233561534961*002	31	1.131657860527370157*003	32	1.131657860527370157*003	33	1.131657860527370157*003	34	1.131657860527370157*003	35	1.131657860527370157*003
31	9.39652295875385790*002	32	1.131657860527370157*003	33	1.131657860527370157*003	34	1.131657860527370157*003	35	1.131657860527370157*003	36	1.3416613811628252583*003
32	1.0016942751429374903*003	33	1.0016942751429374903*003	34	1.0016942751429374903*003	35	1.0016942751429374903*003	36	1.0016942751429374903*003	37	1.415662369151185649*003
33	1.0016942751429374903*003	34	1.0016942751429374903*003	35	1.0016942751429374903*003	36	1.0016942751429374903*003	37	1.415662369151185649*003	38	1.49166322803143512798*303
34	1.0016942751429374903*003	35	1.0016942751429374903*003	36	1.0016942751429374903*003	37	1.0016942751429374903*003	38	1.49166322803143512798*303	39	1.49166322803143512798*303
35	1.0016942751429374903*003	36	1.0016942751429374903*003	37	1.0016942751429374903*003	38	1.0016942751429374903*003	39	1.49166322803143512798*303	40	1.6496649024149040403*003
36	1.0016942751429374903*003	37	1.0016942751429374903*003	38	1.0016942751429374903*003	39	1.0016942751429374903*003	40	1.6496649024149040403*003	41	1.7316656261509867450*003
37	1.0016942751429374903*003	38	1.0016942751429374903*003	39	1.0016942751429374903*003	40	1.0016942751429374903*003	41	1.81566629886019351697*003	42	1.9016669255207536663*003
38	1.0016942751429374903*003	39	1.0016942751429374903*003	40	1.0016942751429374903*003	41	1.0016942751429374903*003	42	1.9016669255207536663*003	43	1.9896675998392206736*003
39	1.0016942751429374903*003	40	1.0016942751429374903*003	41	1.0016942751429374903*003	42	1.0016942751429374903*003	43	2.07966805604480625679*003	44	2.1716685670120662129*003
40	1.0016942751429374903*003	41	1.0016942751429374903*003	42	1.0016942751429374903*003	43	1.0016942751429374903*003	44	2.1716685670120662129*003	45	2.26566904503037194952*003
41	1.0016942751429374903*003	42	1.0016942751429374903*003	43	1.0016942751429374903*003	44	1.0016942751429374903*003	45	2.3616694503037194952*003	46	2.4596699172656539319*003
42	1.0016942751429374903*003	43	1.0016942751429374903*003	44	1.0016942751429374903*003	45	1.0016942751429374903*003	46	2.4596699172656539319*003	47	2.4596699172656539319*003
43	1.0016942751429374903*003	44	1.0016942751429374903*003	45	1.0016942						

PROLATE EIGENVALUES $\lambda = 4.60$ $M = 0$

L	EIGENVALUE	L	EIGENVALUE
0	3.78742741956673378924*000	1	4.96603213815058711605*000
1	1.166787169375489406*001	2	1.1753367527790558426*001
2	1.81681514419380835824*001	3	2.1753367527790558426*001
3	2.42191008401152364*001	4	3.0502685397600307192*001
4	3.1596532235637268294*001	5	4.0634703665089996935*001
5	4.1201901531969175077*001	6	5.2576285046137409864*001
6	5.300379195689510843*001	7	6.6664213009854084630*001
7	6.68909191012432605563*001	8	8.2650565852616782520*001
8	8.281889538296994623*001	9	1.0063897794453714462*002
9	1.007696586701817965*002	10	1.20629650006688706772*002
10	1.20734369704419433*002	11	1.42622203655516305932*002
11	1.427081592100913141*002	12	1.6661623052207301430*002
12	1.66688143224874283744*002	13	1.9261139514348050310*002
13	1.92672498466198408688*002	14	2.05064017401816273269*002
14	2.0660036169092119102*002	15	2.05064171531816273269*002
15	2.5064993739524252*002	16	2.826014435223938309*002
16	2.82641639<800832259*002	17	3.16599145665916273617*002
17	3.16634719359612795818*002	18	3.5259719359612795818*002
18	3.526289442248623461*002	19	3.9059552225946732221*002
19	3.9062402303172767811*002	20	4.3059408094606247882*002
20	4.306056782298894021*002	21	4.72592829735624705942*002
21	4.726161702345441523*002	22	5.16591736924336102118*002
22	5.166130154295<88651*002	23	5.625907701626601649*002
23	5.62610251942662164735*002	24	6.10589929605651492767*002
24	6.1060277342685234*002	25	6.6059177342685234*002
25	6.606056782298894021*002	26	7.1258845077391862464*002
26	7.12603769637503962*002	27	7.6558790816123002214*002
27	7.66602060212251405228*002	28	8.2258736953852083010*002
28	8.22668839052083010*002	29	8.805503233690631864*002
29	8.805503233690631864*002	30	9.4055993769758990911*002
30	9.4059792251615250711*002	31	1.002586045894904495*003
31	1.002596302558737206*003	32	1.06658568287339080958*003
32	1.066595705494<66502*003	33	1.1325853515990220869*003
33	1.132594854416523191*003	34	1.2058504823642897693*003
34	1.20599404823642897693*003	35	1.2705847700336029693*003
35	1.2705932251973119458*003	36	1.3425845141884529789*013
36	1.34259251526545234*003	37	1.4165632007460921*003
37	1.416591849746085248*003	38	1.492584406028963160*003
38	1.49259124158082269*003	39	1.57058538555912550513*003
39	1.570590618375837215*003	40	1.6505836714789724584*013
40	1.65059017803748*003	41	1.732583976158314339*003
41	1.732583976158314339*003	42	1.81658333582133570841*03
42	1.81658333582133570841*03	43	1.9025831849006481042*03
43	1.9025831849006481042*03	44	1.99058304412685941965*003
44	1.99058304412685941965*003	45	2.0815829124039278290*003
45	2.0815829124039278290*003	46	2.172582789000720296*003
46	2.172582789000720296*003	47	2.2658526733282404023*003
47	2.2658526733282404023*003	48	2.36258256466346331448*003
48	2.36258256466346331448*003	49	2.46248659144737*003
49	2.46248659144737*003	50	2.56058236622842301676*003
50	2.56058236622842301676*003		2.6625702679614226656*003

L	EIGENVALUE	L	EIGENVALUE
0	4.96603213815058711605*000	1	1.0063897794453714462*002
1	1.1753367527790558426*001	2	1.20629650006688706772*002
2	1.42622203655516305932*002	3	1.66400780764218814398*002
3	1.6661623052207301430*002	4	1.9228262947290072979*002
4	1.9261139514348050310*002	5	2.044977754445182585*002
5	2.05064017401816273269*002	6	2.5046695614063501411*002
6	2.50604171531816273269*002	7	2.8240031318896274495*002
7	2.826414435223938309*002	8	3.1692369949768046207*002
8	3.16599145665916273617*002	9	3.5250196809918792315*002
9	3.52628944224874283744*002	10	3.9059552225946732221*002
10	3.9062402303172767811*002	11	4.305641360196333756*002
11	4.3060408094606247882*002	12	4.722281202655021792*002
12	4.72658427835624705942*002	13	5.1627914053749944797*002
13	5.16591736924336102118*002	14	5.6253235780481525522*002
14	5.625907701626601649*002	15	6.103625253446177913*002
15	6.10589929605651492767*002	16	6.605368561483338539*002
16	6.6060277342685234*002	17	7.125272761642559839*002
17	7.1258845077391862464*002	18	7.655413605861187155*002
18	7.65589177991927317129*003	19	8.005503233690631864*002
19	8.0055993769758990911*002	20	9.4055993769758990911*002
20	9.405644455934526336*002	21	9.405644455934526336*002
21	9.405644455934526336*002	22	9.405644455934526336*002
22	9.405644455934526336*002	23	9.405644455934526336*002
23	9.405644455934526336*002	24	9.405644455934526336*002
24	9.405644455934526336*002	25	9.405644455934526336*002
25	9.405644455934526336*002	26	9.405644455934526336*002
26	9.405644455934526336*002	27	9.405644455934526336*002
27	9.405644455934526336*002	28	9.405644455934526336*002
28	9.405644455934526336*002	29	9.405644455934526336*002
29	9.405644455934526336*002	30	9.405644455934526336*002
30	9.405644455934526336*002	31	1.002586045894904495*003
31	1.002596302558737206*003	32	1.06658568287339080958*003
32	1.066595705494<66502*003	33	1.1325853515990220869*003
33	1.132594854416523191*003	34	1.2058504823642897693*003
34	1.20599404823642897693*003	35	1.2705847700336029693*003
35	1.2705932251973119458*003	36	1.3425845141884529789*013
36	1.34259251526545234*003	37	1.4165632007460921*003
37	1.416591849746085248*003	38	1.492584406028963160*003
38	1.49259124158082269*003	39	1.57058538555912550513*003
39	1.570590618375837215*003	40	1.6505836714789724584*013
40	1.65059017803748*003	41	1.732583976158314339*003
41	1.732583976158314339*003	42	1.81658333582133570841*03
42	1.81658333582133570841*03	43	1.9025831849006481042*03
43	1.9025831849006481042*03	44	1.99058304412685941965*003
44	1.99058304412685941965*003	45	2.0815829124039278290*003
45	2.0815829124039278290*003	46	2.172582789000720296*003
46	2.172582789000720296*003	47	2.2658526733282404023*003
47	2.2658526733282404023*003	48	2.36258256466346331448*003
48	2.36258256466346331448*003	49	2.46248659144737*003
49	2.46248659144737*003	50	2.56058236622842301676*003
50	2.56058236622842301676*003		2.6625702679614226656*003

PROLATE EIGENVALUES $\mathbf{M} = 4,00$			
$\mathbf{M} = 0$	$\mathbf{EIGENVALUE}$	$\mathbf{M} = 1$	$\mathbf{EIGENVALUE}$
0	3.9915000250<0.0497538617+000	1	5.15769824623971302612+000
1	1.229009278547037071+001	2	0.57361336879370149203+000
2	1.916495126142170050065+001	3	1.8649776039136598638+001
3	2.296479900215685705180+001	4	2.89171716885050510031+001
4	3.1443819450460815486+001	5	4.0049637840453568317+001
5	4.1638529466704249985+001	6	5.280398363959329380+001
6	5.36512105754907246148+001	7	6.6893968755391346026+001
7	6.7884404364024/504352+001	8	8.047504357086865361+001
8	8.3799809882735951223+001	9	9.57361336879370149203+000
9	1.01742068704230380964+002	10	1.81242394459934008769+002
10	1.2170071390052893601+002	11	1.4329400907962026441+002
11	1.43670017827684882694+002	12	1.67332163218001186859+002
12	1.676465764902113346+002	13	1.93362129570922323633+002
13	1.936282598786603147872+002	14	2.21383920973516471979+002
14	2.21613666619022550152+002	15	2.5140199833034201235+002
15	2.5160184676921785763+002	16	2.83416648015135374469+002
16	2.83592138557676/27705+002	17	3.1754521237123249137+002
17	3.17584064815603636084+002	18	3.5354233310186279473+002
18	3.53577277916542434422+002	19	3.91540264067531986+002
19	3.915715172968387868702+002	20	4.31535246691325079883+002
20	4.31566585630577/791418+002	21	4.735367467628137698+002
21	4.7356233083195332230+002	22	5.1753534206627105056+002
22	5.1755863435338149086+002	23	5.6353434949740739249+002
23	5.63555402631191318925+002	24	6.1153105325576086229+002
24	6.11552661205/679862+002	25	6.61478114492660100804+002
25	6.61550047178045001707+002	26	7.134812885400216193+002
26	7.1354781503422678590+002	27	7.67484102797680347356+002
27	7.6754582273576739901+002	28	8.2348662379061442554+002
28	8.2352980316224553926+002	29	8.81486866876766202411+002
29	8.61544243082839287071+002	30	9.4149092623742472522+002
30	9.415409885551498040+002	31	1.00349727054927902840+003
31	1.0035396669011269715+003	32	1.067494440192503834+003
32	1.0675384123508564042+003	33	1.13349596719759785152+003
33	1.1335220933373243914+003	34	1.20149735762404433312+003
34	1.133537833832080280+003	35	1.271498630599765309+003
35	1.201536362422/321918+003	36	1.34352926486204103+003
36	1.271535465715597062+003	37	1.4175008772023031836+003
37	1.343534658/0120984280+003	38	1.493501634781200088+003
38	1.417533861113548894+003	39	1.571512930311037032+003
39	1.493533159668276522+003	40	1.6515268211010246314+003
40	1.57153246368011633860+003	41	1.7335044129626326682+003
41	1.6515318860232379002+003	42	1.8175246298762294+003
42	1.8175307226443233136+003	43	1.90350582445494137191+003
43	1.9035303017386332932+003	44	1.9915299691707891809+003
44	1.991529882668/0990618+003	45	2.081538238755205276+003
45	2.0815294444541072581+003	46	2.1735076068837332777+003
46	2.173524592698762294+003	47	2.2675081266531926163+003
47	2.26752863176245159141+003	48	2.36350861433065571171+003
48	2.363523367109546597+003	49	2.4615907505090176269+003
49	2.46152310656281412681+003	50	2.66350990949102696903+003
50	2.66352310656281412681+003	51	2.66352310656281412681+003

$\mathbf{EIGENVALUE}$		$\mathbf{EIGENVALUE}$	
\mathbf{L}	$\mathbf{M} = 2$	\mathbf{L}	$\mathbf{M} = 1$
1	0.57361336879370149203+000	2	0.57361336879370149203+000
3	1.40649776039136598638+001	4	2.89171716885050510031+001
5	3.1443819450460815486+001	6	4.0049637840453568317+001
6	4.1638529466704249985+001	7	5.280398363959329380+001
7	5.36512105754907246148+001	8	6.6893968755391346026+001
8	6.7884404364024/504352+001	9	8.047504357086865361+001
9	8.3799809882735951223+001	10	9.57361336879370149203+000
10	1.01742068704230380964+002	11	1.4329400907962026441+002
11	1.2170071390052893601+002	12	1.67332163218001186859+002
12	1.43670017827684882694+002	13	1.93362129570922323633+002
13	1.936282598786603147872+002	14	2.21383920973516471979+002
14	2.21613666619022550152+002	15	2.5140199833034201235+002
15	2.5160184676921785763+002	16	2.83416648015135374469+002
16	2.83592138557676/27705+002	17	3.174384864402356762859+002
17	3.1754521237123249137+002	18	3.53438072674877530900+002
18	3.53577277916542434422+002	19	3.91447174070701533353+002
19	3.915715172968387868702+002	20	4.3145435668121967593+002
20	4.31566585630577/791418+002	21	4.73460517110592760192+002
21	4.7356233083195332230+002	22	5.174658420681246208+002
22	5.1755863435338149086+002	23	5.63438074770657979837+002
23	5.63555402631191318925+002	24	6.11474537261736724868+002
24	6.11552661205/679862+002	25	6.61478114492660100804+002
25	6.61550047178045001707+002	26	7.134812885400216193+002
26	7.1354781503422678590+002	27	7.67484102797680347356+002
27	7.6754582273576739901+002	28	8.2348662379061442554+002
28	8.2352980316224553926+002	29	8.81486866876766202411+002
29	8.61544243082839287071+002	30	9.4149092623742472522+002
30	9.415409885551498040+002	31	1.00349727054927902840+003
31	1.0035396669011269715+003	32	1.067494440192503834+003
32	1.0675384123508564042+003	33	1.13349596719759785152+003
33	1.1335220933373243914+003	34	1.20149735762404433312+003
34	1.133537833832080280+003	35	1.271498630599765309+003
35	1.201536362422/321918+003	36	1.34352926486204103+003
36	1.271535465715597062+003	37	1.4175008772023031836+003
37	1.343534658/0120984280+003	38	1.493501634781200088+003
38	1.417533861113548894+003	39	1.571512930311037032+003
39	1.493533159668276522+003	40	1.6515268211010246314+003
40	1.57153246368011633860+003	41	1.7335044129626326682+003
41	1.6515318860232379002+003	42	1.8175246298762294+003
42	1.8175307226443233136+003	43	1.90350582445494137191+003
43	1.9035303017386332932+003	44	1.9915299691707891809+003
44	1.991529882668/0990618+003	45	2.081538238755205276+003
45	2.0815294444541072581+003	46	2.1735076068837332777+003
46	2.173524592698762294+003	47	2.2675081266531926163+003
47	2.26752863176245159141+003	48	2.36350861433065571171+003
48	2.363523367109546597+003	49	2.4615907505090176269+003
49	2.46152310656281412681+003	50	2.5615095035266852995+003
50	2.56152310656281412681+003	51	2.66350990949102696903+003

PRELATE EIGENVALUES W = 5.00		N = 1		N = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	0	-4.19512867261637171649+000	1	-3.35042229646413203293+000	2
1	1.2911702325043939760+001	2	1.46425624868199202+001	3	0.74767425193947245198+000
2	2.01765147202337672861+001	3	2.3397613124481093532+001	4	5.9135981010357872642+001
3	2.65872556707397737442+001	4	2.247153568000319296+001	5	2.9287461359324382014+001
4	3.3497096194675884665+001	5	4.0892932687926734505+001	6	4.0892932687926734505+001
5	4.3354595623228786275+001	6	5.3514570255303765520+001	7	5.3514570255303765520+001
6	5.504956223515137725374+001	7	6.4671796707882892573+001	8	6.4671796707882892573+001
7	6.89247245061771406+001	8	6.8647260383972129377+001	9	6.41651945950660586+001
8	8.4825530613999220690+001	9	8.4621683476104154320+001	10	8.0213188351693370951+002
9	1.0258561310279975+002	10	1.0260121526177637804+002	11	1.22093566990482510+002
10	1.2271038898544013672+002	11	1.2258479252779643759+002	12	1.4426414662802029955+002
11	1.445718280C3933684615+002	12	1.6830433416746335+002	13	1.6830433416746335+002
12	1.6456150600189327563+002	13	1.943350079351797391+002	14	1.943350079351797391+002
13	1.68647324986414191+002	14	1.9455194790547586151+002	15	2.2235880199041615434+002
14	2.0266780C4052771599+002	15	2.223864238640520725+002	16	2.5237786095030028593+002
15	2.52595257290089213164+002	16	2.52548452010339753+002	17	2.84392994573241912+002
16	2.8453+20047830242908+002	17	3.18405556066404109+002	18	3.18405556066404109+002
17	3.18532295696933080890+002	18	3.544159876111645987+002	19	3.544159876111645987+002
18	3.545298369905963156+002	19	3.9424766813315880711+002	20	4.3243221994068063351+002
19	3.9255955639492792301+002	20	4.3252+7122466628503+002	21	4.744386012793064996+002
20	4.375564215224941412+002	21	4.74521596682372673500+002	22	5.1844412506872853487+002
21	4.745452616224941412+002	22	5.18532295696933080890+002	23	5.644489270000046711+002
22	5.1854496143370572731+002	23	5.645112917807127339+002	24	6.124512917807127339+002
23	5.6454120075466561064+002	24	6.1251+69921930304243+002	25	6.6245682707817303400+002
24	6.1253745225005707370+002	25	6.6251531219463912175+002	26	7.144501090759177934+002
25	6.6251496794033074410983+002	26	7.6846301618228616161+002	27	7.6846301618228616161+002
26	7.14517366862274725+002	27	7.685112911487581580+002	28	8.06465614457344054493+002
27	7.6851105124113=11532+002	28	8.24512384C8950895269+002	29	8.824679509966115374+002
28	8.24527573084606731042+002	29	8.251156622574346770+002	30	9.4247060602547459192+002
29	9.4252610564417414352+002	30	9.425142354749248926+002	31	1.014471931982371727+003
30	1.0451201552707477826+003	31	1.0645R95448021908500+003	32	1.0645R95448021908500+003
31	1.06452246562127544255+003	32	1.134475205440R963794+003	33	1.134475205440R963794+003
32	1.16452144458122315+003	33	1.1345C89472315931924+003	34	1.2024766928463024758+003
33	1.23495202305540221+03	34	1.2725R847736834392566+003	35	1.2724780639269333001+003
34	1.2725192716669192177+003	35	1.344792102997559419+003	36	1.344792102997559419+003
35	1.2725192716669192177+003	36	1.3445R75751343031945+003	37	1.418480376267612238+003
36	1.3445R75751343031945+003	37	1.418480376267612238+003	38	1.494481386772103652+003
37	1.418481386772103652+003	38	1.4945R71825081270665+003	39	1.4945R71825081270665+003
38	1.4945R681616155565+003	39	1.5248315183641252039+003	40	1.5248315183641252039+003
39	1.5725R64771616948469+003	40	1.6525Rt1627576702682+003	41	1.7344839443204177+003
40	1.6525Rt1627576702682+003	41	1.7345R5876672004710+003	42	1.81048471742835811149+003
41	1.7345R5876672004710+003	42	1.81048471742835811149+003	43	1.90448548472255385A+003
42	1.7345R5876672004710+003	43	1.9045R5345212001015+003	44	1.992486020583405211+003
43	1.9925R5105811638472+003	44	2.08248662552765706+003	45	2.08248662552765706+003
44	2.0825R4887518988P237+003	45	2.1744872536709551062+003	46	2.1744872536709551062+003
45	2.0825R4887518988P237+003	46	2.26848778073591295221+003	47	2.26848778073591295221+003
46	2.2685R44850228P86498+003	48	2.364488207263528736+003	49	2.4624887431899546454+003
47	2.2685R44850228P86498+003	49	2.4625R43196553463202+003	50	2.562489205246046438+003
48	2.4625R43196553463202+003	50	2.66448962371913986226+003	51	2.66448962371913986226+003

PARALLEL EIGENVALUES 5 · 20

二

FILE NAME		DATE	TIME	DATA
C	C	4.309874145997060008924000		
L	C	1.353223377800P17720084001		
L	C	2.7838032548247722849864001		
E	C	3.51306793588F147249864001		
E	C	4.4522621740227357254001		
E	C	5.95651365913255957154001		
E	C	7.0n1241216344502274001		
E	C	8.58970673492079622734001		
E	C	1.0382554948924847874002		
E	C	1.237467670123705752714002		
E	C	1.4577223123057632254002		
E	C	1.6949966073915268341464002		
E	C	1.9556911241504326154002		
E	C	2.363462653824326154002		
E	C	2.53454251453020104934002		
E	C	2.85617225507132431914002		
E	C	3.196603522626358488904002		
E	C	3.5556912746756276130002		
E	C	3.9254911241504234874002		
E	C	3.359527677347510524094002		
E	C	4.7657043517476223244002		
E	C	4.7657043517476223244002		
E	C	5.655476535069568595434002		
E	C	6.135486276723544853514002		
E	C	6.6354606213424379224002		
E	C	7.1555717204771720224002		
E	C	7.69554515006393498174002		
E	C	8.21355532649241644864002		
E	C	9.4354846462031367246684002		
E	C	1.0035546462031367246684002		
E	C	1.4695546462031367246684002		
E	C	1.57355146273412304664003		
E	C	1.65554342034134346182414003		
E	C	1.735472494920368050805003		
E	C	1.27354502093584802924903		
E	C	1.3455546462031367246684003		
E	C	1.4145216369181P14247234003		
E	C	1.9935312167344387116824003		
E	C	2.03555146462031367246684003		
E	C	2.17555214535622632094003		
E	C	1.81495216369181P14247234003		
E	C	1.44555373578204040249794003		
E	C	1.9935312167344387116824003		
E	C	2.36955216369181P14247234003		
E	C	2.4435701145Mn44843035003		

L	EIGENVALUE
1	5.54403700027101127443*000
2	1.502469631133720666*001
3	2.42500142581587996535*001
4	4.3575028E0167575001
5	4.372228280E0181573189*001
6	4.5738418521076457596*001
7	4.8828548894471844*001
8	5.6744986823135723688*001
9	1.0364757251979961958*001
10	1.23626718442757570912*002
11	1.56413052277369160*002
12	1.695972677137A1941635*002
13	1.955847863830444209*002
14	2.2357925789311070936*002
15	2.53788815040689*002
16	2.85565397297438641734*002
17	2.19566490311470511979*002
18	2.55553303213069960*002
19	2.5555774741139216819*002
20	4.355451253511296712*002
21	4.75547058243819906519*002
22	5.29544742537127921*002
23	5.55427095082683918*002
24	6.1354491615725326717*002
25	6.653533261156n078646*002
26	7.15537910771882943742*002
27	7.49536444563543580*002
28	F.25535074077513267*002
29	F.15334826604843925*002
30	F.353375556862387512*002
31	1.015217287557*003
32	1.04953195C035229182*003
33	1.135511251931893185812*003
34	1.27353061201979546144*003
35	1.2735302948E034225575003
36	1.34552948E034225575003
37	1.41952899133926822792*003
38	1.4955285325684136787*003
39	1.57352810F007242157646*003
40	1.53527143008363721*003
41	1.716527161308363721*003
42	1.81952720007463966718*003
43	1.90552669C881781645382*003
44	1.9935539463124525262*003
45	2.0835261176460769*003
46	2.17552858E0348917964*003
47	2.2695256148653638598*003
48	2.36552538644295899866*003
49	2.56735*9465223779H-2*003
50	2.66735*9465223779H-2*003

FIVENUMBER	8.9238773340619857120+n0n 1.9631347724708954963-001 3.03650562235612709405+n01
4.-4.17668373074874938559+n01 5.-4.456755921955948835-001	6.-8810914447n236849+n01 8.501104949263531396n+n01
1.23217401919377292+n002 1.452753866457408256+n002	1.23217401919377292+n002 1.693177330885539506+n002
2.53394191818n622835+n002 2.85410053134377A9556+n002	2.5339419181844n24082+n002 3.5543363038319738567+n002
4.15467175154n-06170962+n002 5.194628198584550161+n002	3.934428666653191801076+n002 4.3345059219334504233+n002
6.-03475462846534236882+n002 7.-03475462846534236880+n002	6.-03475462846534236882+n002 7.-03475462846534236880+n002
7.-6.9482208219574978281+n002 8.-25484781739454154529+n002	8.-25484781739454154529+n002 8.33487273808441547551+n002
9.-1.354941477031232971+n003 1.2034941437402052+n003	9.-1.354941477031232971+n003 1.2034941437402052+n003
1.273493557759393249+n003 1.4194991741381n012685+n03	1.273493557759393249+n003 1.4194991741381n012685+n03
1.9935051796473779012966+n03 2.08350501978589490441+n03	1.9935051796473779012966+n03 2.1755010278444641652+n03
2.2695505754895319073+n003 2.36550501164164642+n003	2.2695505754895319073+n003 2.36550501164164642+n003

PROLATE EIGENVALUES $H = 5.40$		
L	$M = 0$	$M = 1$
EIGENVALUE	EIGENVALUE	EIGENVALUE
0	4.6015424629527660831+000	2
1	1.4151813171494349598+001	2
2	2.22322564214412891+001	2
3	2.9130228154424828363+001	3
4	3.244453093718721044+001	4
5	4.57445175207412108375+001	5
6	5.73611519606518557+001	6
7	7.1486663580127693897+001	7
8	8.7015604604302643+001	8
9	1.049232736856732233A+002	9
10	1.2486284914775410152+002	10
11	1.466915222160538666423+002	11
12	1.7062836321961319851+002	12
13	1.9666238902224483+002	13
14	2.24651841150176293262+002	14
15	2.247251542997907092+002	15
16	2.8663595203537832994+002	16
17	3.2062684931936229+002	17
18	3.5662476116168182336+002	18
19	3.9462037508522635948+002	19
20	4.34611598627574378222+002	20
21	4.766127527649320+002	21
22	5.2061047027881056019+002	22
23	5.66521028857862002	23
24	6.14605755157641164343+002	24
25	6.748607796226560519897+002	25
26	7.166020519670166641+002	26
27	7.70604917852629688+002	27
28	8.24597828828107657431+002	28
29	8.86118158715119489+002	29
30	9.4461251516511771038+002	30
31	1.0065956502993727729+003	31
32	1.0661052538641064+003	32
33	1.1365938503983385314+003	33
34	1.2045930623360907319+003	34
35	1.27459234168206724964+003	35
36	1.3465916781383970+003	36
37	1.42056106626710691144+003	37
38	1.496590501561268445+003	38
39	1.5745397504326897596+003	39
40	1.6545953252798059+003	40
41	1.736589040889387188+003	41
42	1.8205660508403793687+003	42
43	1.9065982347929552056+003	43
44	1.99659829589035918612+003	44
45	2.04593525798059+003	45
46	2.1675972016597143479+003	46
47	2.2705679099783805308+003	47
48	2.36656622102289+003	48
49	2.4645636401645841+003	49
50	2.5645961550198254046+003	50

L	$M = 2$	$M = 1$	$M = 0$
EIGENVALUE	EIGENVALUE	EIGENVALUE	EIGENVALUE
9.10199976302187832712+000	2	2	2
2.03513182066622281842+001	3	3	3
3.111428082167260182+001	4	4	4
4.2605270191526697482+001	5	5	5
5.548504629942018376+001	6	6	6
6.92906682355157764+001	7	7	7
8.606653203957217764+001	8	8	8
1.0179427834789040341141+002	9	9	9
1.2426700273970226957+002	10	10	10
1.435275225241638+002	11	11	11
1.7037225189010906697+002	12	12	12
1.980555103691908671+002	13	13	13
2.443126879040341141+002	14	14	14
2.545157079421971324+002	15	15	15
2.86667917643225759159+002	16	16	16
3.2081277472850591931+002	17	17	17
3.5642751553794651359137+002	18	18	18
3.9450161472553219119+002	19	19	19
4.350947323502242233+002	20	20	20
4.751619169039712317+002	21	21	21
5.202198764782181079+002	22	22	22
5.665274812662481264+002	23	23	23
6.1453140631273750015+002	24	24	24
6.645352134514870246+002	25	25	25
7.105412958145866728+002	26	26	26
8.265443721417329022+002	27	27	27
8.845466823272722128+002	28	28	28
9.44595505433708626+002	29	29	29
1.00655103350477010102+003	30	30	30
1.07552570037124+003	31	31	31
1.365544556649324279+003	32	32	32
1.4956597236325903902+003	33	33	33
1.575517289215463053+003	34	34	34
1.6555626321796979547+003	35	35	35
1.765634691082518871+003	36	36	36
1.800564248n44753n0621+003	37	37	37
1.906564972387676421+003	38	38	38
1.995656477195168363+003	39	39	39
2.0856662783745101056+003	40	40	40
2.16566868231966947+003	41	41	41
2.270567427361563163+003	42	42	42
2.386567980615941099+003	43	43	43
2.46566425769798532+003	44	44	44
2.5656680385008505+003	45	45	45
2.66656931469333+003	46	46	46
2.765634691082518871+003	47	47	47
2.836567980615941099+003	48	48	48
2.93656622102289+003	49	49	49
2.5645961550198254046+003	50	50	50

PR3LATE EIGENVALUES M = 5.60

M = 0		EIGENVALUE	
L	1	4.80384327270H4P4D7622+000	1
	2	1.476921625829592+001	2
	3	2.32711414052C4A081769+001	3
	4	3.0459C722312291492+001	4
	5	3.7811016270900229971771+001	5
	6	4.702455701697204602+001	6
	7	5.8579E13947422681925+001	7
	8	7.233451272445+452138+001	8
	9	8.8189013425850007281+001	9
	10	1.06076317431462854+002	10
	11	1.26402210273641356+002	11
	12	1.479473105524r290518+002	12
	13	1.7190511684640328870+002	13
	14	1.97872342759172164+002	14
	15	2.2584681347644+24730+002	15
	16	2.5582571432600292346+002	16
	17	2.87BnE45441225211320+002	17
	18	3.217461223382192935+002	18
	19	3.5717936881942194546+002	19
	20	3.95726355884210973+002	20
	21	4.35724445286250713+002	21
	22	4.777204662785593533+002	22
	23	5.2171699741529207600+002	23
	24	5.6771395365593701084+002	24
	25	6.1571126813786293526+002	25
	26	6.65708887250831304+002	26
	27	7.17049376936320549+002	27
	28	7.2703174C086968207+002	28
	29	8.27722771385692149+002	29
	30	8.857152F2556555097164+002	30
	31	9.457134622979P920197+002	31
	32	1.07775CC0949684990132+003	32
	33	1.0712861286152+003	33
	34	1.137710451375136412+003	34
	35	1.2056585486435176+003	35
	36	1.275654977437920702+003	36
	37	1.3476541716669274946+003	37
	38	1.4242746355091757310+003	38
	39	1.4977C41572076220+003	39
	40	1.5756592116048029554+003	40
	41	1.6557C2243M57835123+003	41
	42	1.7257C15483523+52336+003	42
	43	1.821465910Y94355r75+52M+003	43
	44	1.9076P999298771598648+003	44
	45	1.995689553485914048+003	45
	46	2.0856P913665071978772+003	46
	47	2.1776P87448611705463+003	47
	48	2.2716P838559386996+003	48
	49	2.3676P804410383349891+003	49
	50	2.4656P772811174753+003	50
	51	2.5656P874212773519176+003	51

M = 2		EIGENVALUE	
L	1	5.9334059735640598411+000	1
	2	1.6341661208500325996+001	2
	3	2.600258045594470+001	3
	4	3.556446560654795414+001	4
	5	4.5982563322178857366+001	5
	6	5.8011097742476296225+001	6
	7	7.08870352272972083276+001	7
	8	8.75026059565203651+001	8
	9	1.052653688052159242+002	9
	10	1.2535806470326357371+002	10
	11	1.4742199943906563457+002	11
	12	1.468122340154064406+002	12
	13	1.9750260589944705272+002	13
	14	2.25529112188666154735+002	14
	15	2.55549966488452909902+002	15
	16	2.8774982C40584999914573443+002	16
	17	3.2596330702909+002	17
	18	3.575919637294121961+002	18
	19	3.95601027342706594387+002	19
	20	4.5635090321463524375+002	20
	21	4.77615812191721623355+002	21
	22	5.162167384036527333+002	22
	23	5.6762675797552129668091+002	23
	24	6.19631197590118168+002	24
	25	6.563509828955895272+002	25
	26	7.1738544664552523962+002	26
	27	7.176416052299779200+002	27
	28	8.276433595927938133+002	28
	29	8.85646782965535647407+002	29
	30	9.564898452029236952+002	30
	31	1.016527741508237844+003	31
	32	1.376544119202873449+003	32
	33	1.5206559505102439415+003	33
	34	1.75662618780435047+003	34
	35	1.7376634586632353736+003	35
	36	1.347658529037006813+003	36
	37	1.2165967369375433731+003	37
	38	1.3766073392998376817+003	38
	39	1.5756617129643685105+003	39
	40	1.65662618780435047+003	40
	41	1.737654977437920702+003	41
	42	1.8166423845612363+003	42
	43	1.9766496487529863162+003	43
	44	2.05665564167503856097+003	44
	45	2.173668645704640376+003	45
	46	2.216674180404489020+003	46
	47	2.366679371326811414+003	47
	48	2.4656684246493798451+003	48
	49	2.56566883105253046+003	49
	50	2.66766931477224314168+003	50

PRBLATE EIGENVALUES M = 5,80		
M = 0	EIGENVALUE	EIGENVALUE
L	5.00617010894044791081+000	6.12894926667991529186+000
1	1.538556813675722319+001	1.691663897911181009+001
2	2.4312556102786160698+001	2.6979025671672730+001
3	3.1817416653521424+001	3.6669391625734492+001
4	3.92362520246301457+001	4.71773492746602324+001
5	4.8367881708877161644+001	5.921770547675947190+001
6	5.985462527172757582181+001	7.316059097891714130+001
7	7.35568125599357582181+001	8.940408642951805639+001
8	8.939160173656318866+001	1.070514355016510412+002
9	1.07272871431345659+002	1.274801211660911652+002
10	1.2718613415659+002	1.481051051171431714+002
11	1.491253531795012273+002	1.72953547763620451+002
12	1.7307751848813197953+002	1.989403151347994545+002
13	1.9904221982666154664+002	2.2692485817411683319+002
14	2.270155693754238065+002	2.5691215655262723411+002
15	2.56986445873532930+002	2.880160448051804789+002
16	2.889666670295258115+002	2.2289274850594755065+002
17	3.229526009796886838+002	3.5888524716584219064+002
18	3.58936451982115105+002	3.9687842426841724984+002
19	3.9692473035724711887+002	4.3687329167903867101+002
20	4.369147011875584280+002	4.78865522069939280+002
21	4.7890605328457144895+002	5.2286438703805795247+002
22	5.228965479866+002	5.6860733333978077488+002
23	5.6889194552604569294+002	6.16857510434108589+002
24	6.1688616735223595360+002	6.668546513286949830+002
25	6.6668107755113r251688+002	7.188521114682951964+002
26	7.18876251354864200+002	7.724873878864405542+002
27	7.7287248892894r38822+002	8.2284779643370994103+002
28	8.28868593816547638+002	8.86449572281175570+002
29	8.8486553438708184+002	9.46842945179979326104+002
30	9.468626452PC01806910+002	1.0088427819799663586+003
31	1.0088995740863741675+003	1.0728414141581+003
32	1.0728575164208r09693+003	1.1388401611027109503+003
33	1.1388401611027109503+003	1.206796130327811593+003
34	1.2068448153534575420+003	1.2068448153534575420+003
35	1.2068448153534575420+003	1.2068448153534575420+003
36	1.27685145102257412410+003	1.3488769979043587162+003
37	1.3488769979043587162+003	1.42836103571588622+003
38	1.42836103571588622+003	1.49887528190724482565003
39	1.49887528190724482565003	1.5768018980199723202+003
40	1.5768018980199723202+003	1.65680279668815758963+003
41	1.6568018980199723202+003	1.738803630843806791+003
42	1.738803630843806791+003	1.82280440318385380001+003
43	1.82280440318385380001+003	1.908805123265763165+003
44	1.908805123265763165+003	1.99680579816772803+003
45	1.99680579816772803+003	2.096804422105968395+003
46	2.096804422105968395+003	2.178803630843806791+003
47	2.178803630843806791+003	2.272805270272161+003
48	2.272805270272161+003	2.36882964372709631+003
49	2.36882964372709631+003	2.4668055220008598015+003
50	2.4668055220008598015+003	2.56680900616408938+003
51	2.56680900616408938+003	2.66680943421502870140+003

PROLATE EIGENVALUES		M = 1	M = 2
L	EIGENVALUE	EIGENVALUE	EIGENVALUE
0	6.5213538154490140865e-000	1	9.8301925091797#834919e+000
1	1.661356405041199256e+001	2	2.223012041749817e+001
2	2.6400236339902134748e+001	3	3.428417484965748e+001
3	3.461414696541767748e+001	4	4.65649669637591196e+001
4	4.2259892791199023273e+001	5	5.974227567256128e+001
5	5.124366568397738622e+001	6	7.42992716891847e+001
6	6.2555574666837515724e+001	7	9.0610012246335986e+001
7	7.61885453005635229e+001	8	9.87741269236160695e+001
8	9.19578702803131019367e+001	9	1.2884250679701103876e+002
9	1.0980444686310239e+002	10	1.50954595217333576e+002
0	1.296948224253732425e+002	11	1.7500561531212951921e+002
1	1.516137716566462189e+002	12	2.01427191455064664e+002
2	1.7555204008880e+51029e+002	13	2.2907042465505050249e+002
3	2.0150286793159781e+002	14	2.5909242615390879167e+002
4	2.29465521070182293771e+002	15	2.91109396393247921267e+002
5	2.594545387742874e+002	16	3.251234470347920589e+002
6	2.91405602108826646982e+002	17	3.611348950935745508e+002
7	3.253878556162776867e+002	18	3.9914419735675036298e+002
8	3.61372018119788265e+002	19	4.391250133225407078e+002
9	3.963549247768035792251e+002	20	4.81158807403591052071e+002
0	4.39346205091594613e+002	21	5.251234470347920589e+002
1	4.8133C8E215694924904e+002	22	5.711692052352741695e+002
2	5.2532121558963432522e+002	23	6.191738455499231248e+002
3	5.713127268792618981e+002	24	6.6917879446185158e+002
4	6.1930522034977346288e+002	25	7.2118097312186628e+002
5	6.6929E665725190948328e+002	26	7.751835073537787673e+002
6	7.2192989204080647e+002	27	8.3118866743656448531e+002
7	7.7528629942121050264e+002	28	8.89188808882735448867e+002
8	8.312829529896924357e+002	29	9.491190297459129857e+002
9	8.8672747525056279144e+003	30	1.0111920797143062280e+003
0	9.49274946460030437962e+002	31	1.07519510362n158191e+003
1	1.012490035081316672e+003	32	1.14119664403n91380e+003
2	1.07526168340277843419e+002	33	1.2792450868020521e+003
3	1.32025625953379255507e+002	34	1.351191592639016603300e+003
4	1.42539529535143698e+002	35	1.425200382073419939e+003
5	1.012518273064206672e+003	36	1.5012003827356469679e+003
6	1.07526168340277843419e+002	37	1.5792025877456147361e+003
7	1.32025625953379255507e+002	38	1.65920381061353699272e+003
8	1.4252003827356469679e+003	39	1.7412381844843993e+003
9	1.5792025877456147361e+003	40	1.825e-1531232773677e+003
0	1.7412381844843993e+003	41	1.9112003827356469679e+003
1	1.8252375255221736648e+003	42	1.999203827356469679e+003
2	1.872524955621988656e+003	43	2.069203827356469679e+003
3	1.91212673521368310893e+003	44	2.139203827356469679e+003
4	1.999203827356469679e+003	45	2.21812077923615480163e+003
5	2.069203827356469679e+003	46	2.2752003827356469679e+003
6	2.139203827356469679e+003	47	2.3712003827356469679e+003
7	2.21812077923615480163e+003	48	2.469203827356469679e+003
8	2.2752003827356469679e+003	49	2.569203827356469679e+003
9	2.3712003827356469679e+003	50	2.6712003827356469679e+003

PROBLÈME EIGENVALEUS M = 6.60

M = 0		M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	5.81347662353505220936+000	1	6.91512952114846342899+000	2	1.02017227014128496187+001
1	1.783717482178734384+001	2	1.9245327565958360505+001	3	2.32983294626879161931+001
2	2.848435629450228450+001	3	2.0624662131974024851+001	4	3.59575623535948753052+001
3	3.74875610529081460112+001	4	4.1395495481738007546+001	5	4.86655963387201371002+001
4	4.54943118005225858736+001	5	5.23725665537422322809+001	6	6.2074539902395878168+001
5	5.437915619461552359+001	6	6.451561218951675055+001	7	7.677144012042391140+001
6	6.551105677405000876+001	7	7.84263972245683630+001	8	9.31273364197053178864+001
7	7.901847890190735908+001	8	8.4314333535278849716+001	9	1.1132463646769688495+001
8	9.47212853929189573967+001	9	9.1222077121354632022+002	10	1.31443780341861270177+002
9	1.1252161242779135062+002	10	1.32147352185225536885+002	11	1.5352102957438719123+002
10	1.3238327922138046+002	11	1.5408992219949941516+002	12	1.775739763780201037+002
11	1.5428248064740136540+002	12	1.7804454882365498855+002	13	2.03618830733136835+002
12	1.7820191611137638023+002	13	2.0400823588783129799+002	14	2.3163999214309476926+002
13	2.0414662827601259608+002	14	2.31977921256621848609+002	15	2.6166414397556512525+002
14	2.320919156497655837+002	15	2.61954621570420655+002	16	2.93678197621361333278+002
15	2.6205247699616+43025+002	16	2.9393456888189597+51+002	17	3.276912556948279954+002
16	2.93026125566267+132+002	17	2.9717428340178696+002	18	3.63702385697497545+0+02
17	3.279231742431595480+002	18	3.63905150613786853664+002	19	4.0171129659809218613+002
18	3.6397058289511693+002	19	4.01891069561384+002	20	4.4171872242142749617+002
19	4.0195145058620563840+002	20	4.418090086929298992+002	21	4.837491989054302259+002
20	4.419346570866234332+002	21	4.838718507242550230+3+002	22	5.27730306159429629+0+002
21	4.8392082172707441037+002	22	5.278619586423132657+10+002	23	5.73734862453498731+002
22	5.27608517778821893+002	23	5.738570346911605388+002	24	6.2173835106535113+0+002
23	5.73897718883452867+002	24	6.2185593298521155458+002	25	6.71742285751476199+002
24	6.21887531985071279+002	25	6.7180295321402+002	26	7.237453095334603764+0+02
25	6.71875947456382+002	26	7.238471053618841668+002	27	7.777497795604791195+002
26	7.2387251535184908321+002	27	7.7838401974621561+002	28	8.337539230877204687+002
27	7.7865886975361985+20+002	28	8.33832547661965338861+002	29	8.9175245523941631423+002
28	8.33855940202552267+229+002	29	8.912906419232447010+002	30	9.517543440363117262+002
29	8.718546012617818305+002	30	8.518259161377816530+002	31	1.0137540428630723537+003
30	9.51846778406344605714+002	31	1.0138230652308699159+003	32	1.077497795604791195+002
31	1.013845073243610734+003	32	1.07820462238527192+003	33	1.14375496411663885+003
32	1.0774414447940867+005+003	33	1.14318106178587251+003	34	1.211760225794870784+003
33	1.077442617374078692+003	34	1.1438180744174662057+024+003	35	1.2617613758934975038+003
34	1.143837137581288692+003	35	1.281813944193964886+003	36	1.357624232391216176+003
35	1.143841705543552+436+003	36	1.3538121152226819720+003	37	1.4277633911673891166+003
36	1.1453426186371755208787+003	37	1.4278104348621576721+003	38	1.50376426799296355+003
37	1.14742617374078692+003	38	1.5038889059504239178+003	39	1.58176505303904830+003
38	1.1539237389495+7740154+003	39	1.58180744174662057+024+003	40	1.6617658865944749135+003
39	1.159125583090506656+003	40	1.6618076167687962785+003	41	1.743765378469592+003
40	1.1661806283495+602+041+003	41	1.7438048664962164006+003	42	1.82776719027089168517+003
41	1.74381643641783333+003	42	1.8278037153945222979+003	43	1.913767790851038733+003
42	1.82781569064492331780+003	43	1.913817645970168857+003	44	2.001768348041516185+003
43	1.91381+57+606+492+43+003	44	2.00181671776456687+003	45	2.0917688701883670492+003
44	2.011412731270166281+003	45	2.09180686988074+15+003	46	2.1837693935463330+003
45	2.09110104437+86521+003	46	2.1837698241644623766+003	47	2.277689265988794403+003
46	2.1418C95149233110907+003	47	2.2777823068240907461+003	48	2.471776350363572436+003
47	2.277RC81246434976051+003	48	2.373782210571382990+003	49	2.5717710173409263822+003
48	2.373AC7511425781039+003	49	2.47177457809365446+003	50	2.571776681116715934463+003
49	2.4718RC64481174+544905+003	50	2.6737713681003597331+003		

PR38E EIGENVALUES M = 6.80	
M = 0	EIGENVALUE
0	6.01492265426564119690+000
1	1.844748519602474220+001
2	1.952351267357465350+001
3	3.89423771281160039+001
4	4.71817445684303+001
5	5.61456351608324779184+001
6	6.797469187123716875+001
7	8.013532160550617430+001
8	9.61742487005246437+001
9	1.13954733674711727300+002
10	1.3379744690584128303+002
11	1.554772905491852454+002
12	1.794249388425995846+002
13	2.0538105645781284+002
14	2.3334909479593301592+002
15	2.6332122H7136705017+002
16	2.952451051132958794+002
17	3.2927812745291956345284+002
18	3.652623008020806264+002
19	4.032489351805937812+002
20	4.432364246504125485333+002
21	4.8569550839127801523+002
22	5.2924516654854854+002
23	5.7308264297652437+002
24	6.23201708864885334371+002
25	6.731959324568670027
26	7.251899324568670027
27	7.7909302981652437+002
28	8.3509315646578347819+002
29	8.93095699591560358+002
30	9.530964019972033177+002
31	1.015094864706813407+003
32	1.0790998525379374307+003
33	1.14510105218236463774+003
34	1.2831032900508677786+003
35	1.355104247966151603+003
36	1.4291050997733072800+003
37	1.5051058455579352+003
38	1.5831046293908677786+003
39	1.663107351134933412+003
40	1.74510517935098443178+003
41	1.8291473142666803693+003
42	1.915146076765732037+003
43	1.9514607619633404+003
44	2.00314492515018431016+003
45	2.06315180647836241945+003
46	2.12315180692769768+003
47	2.1851428279326076894+003
48	2.2791418765321203630+003
49	2.379116295290560216+003
50	2.473140516351542060+003
51	2.573193618800294610+003

PROGLATE EIGENVALUES H = 7.00

M = 0

EIGENVALUE

L	EIGENVALUE
0	0.21625285122050955647+0.001
1	1.9056577802764925230+0.001
2	3.056020086074/J40613+0.001
3	4.0057212766246012+0.001
4	4.89105849214596599218+0.001
5	5.77775076414113323+0.001
6	6.8701439262108214145+0.001
7	7.204637081261625812+0.001
8	8.78457051572468231+0.001
9	9.72056615167298980+0.001
10	1.153427855489487142+0.002
11	1.3515787724083696806+0.002
12	1.8127985457941529600+0.002
13	1.8029254349782660687+0.002
14	2.065231955043350+0.002
15	2.38911418184257596+0.002
16	2.68416591<1650952132+0.002
17	2.9601051036461286416+0.002
18	3.307673044034372436+0.002
19	3.6673894956760645183+0.002
20	4.047148918J0894052942+0.002
21	4.4464302041842J080220+0.002
22	4.86676542548241254811+0.002
23	5.306107733529941536+0.002
24	5.766016398210800094+0.002
25	6.245935828866230345+0.002
26	6.74586446906915809970+0.002
27	7.265800937843535002+0.002
28	7.805744138658860223+0.002
29	8.365693169558923978/4+0.002
30	9.545615734194698562+0.002
31	1.0164812572357002167+0.002
32	1.2647205567501582850+0.002
33	1.88449238803488639+0.002
34	2.304698256205620562+0.002
35	2.7244685537183183191+0.002
36	3.104447769718376068+0.002
37	3.45048174561731069+0.003
38	3.80458038028287/17+0.003
39	4.14655025790959201882+0.003
40	4.5045619572625968+0.003
41	4.864489383183156859+0.003
42	5.13049014626889797910+0.003
43	5.430501450292758+0.003
44	5.7065380937389024720+0.003
45	6.0052853837144111202+0.003
46	6.366498149488688693+0.003
47	6.7465326009566660165+0.003
48	7.1049525051821646098+0.003
49	7.4745307550780318572+0.003
50	7.8705345370509220350+0.003
51	8.27649340503052411499+0.003

M = 1

EIGENVALUE

L	EIGENVALUE
1	7.30993703776517178080+0.000
2	2.0423246993289995603+0.001
3	3.25361139865054437212+0.001
4	4.3892072127662460159+0.001
5	5.52016415334850382604+0.001
6	6.7446152163964264255+0.001
7	8.13493732067599916086+0.001
8	9.72056615167298980+0.001
9	1.140454424659202628+0.002
10	1.34176488607871523+0.002
11	1.562578307466987656+0.002
12	1.8031211960025530444+0.002
13	2.064391663612817245+0.002
14	2.34377257778655252510+0.002
15	2.643976536898781042+0.002
16	2.96413301140642998125+0.002
17	3.304255838734589581+0.002
18	3.6643523231914638365+0.002
19	4.044432553465990025+0.002
20	4.4444982240665170698+0.002
21	4.88445203886393962+0.002
22	5.3045980152256203624+0.002
23	5.764638870377662367+0.002
24	6.2446703129877843285+0.002
25	6.7246992572357002167+0.002
26	7.2647205567501582850+0.002
27	7.8047466487623238784+0.002
28	8.36476613137298424156+0.002
29	8.9447883052407294317+0.002
30	9.54479419638892855579+0.002
31	1.0164812572357002167+0.003
32	1.080482954408777620+0.003
33	1.36476613137298424156+0.003
34	1.2144844244259613257+0.003
35	1.284485537183183191+0.003
36	1.43048174561731069+0.003
37	1.50648949486001251850+0.003
38	1.58448949486242117+0.003
39	1.66448948940688688693+0.003
40	1.746489383183156859+0.003
41	1.83049014626889797910+0.003
42	1.916490612784917791+0.003
43	1.9165598620115527530+0.003
44	2.00452853837144111202+0.003
45	2.0944914621965477742+0.003
46	2.186498149488688693+0.003
47	2.28049219669123630710+0.003
48	2.37649240348244300748+0.003
49	2.4745307550780318572+0.003
50	2.5715221724624922966+0.003
51	2.67649340503052411499+0.003

EIGENVALUE

L	EIGENVALUE
1	7.30993703776517178080+0.000
2	2.0423246993289995603+0.001
3	3.25361139865054437212+0.001
4	4.3892072127662460159+0.001
5	5.52016415334850382604+0.001
6	6.7446152163964264255+0.001
7	8.13493732067599916086+0.001
8	9.72056615167298980+0.001
9	1.140454424659202628+0.002
10	1.34176488607871523+0.002
11	1.562578307466987656+0.002
12	1.8031211960025530444+0.002
13	2.064391663612817245+0.002
14	2.34377257778655252510+0.002
15	2.643976536898781042+0.002
16	2.96413301140642998125+0.002
17	3.304255838734589581+0.002
18	3.6643523231914638365+0.002
19	4.044432553465990025+0.002
20	4.4444982240665170698+0.002
21	4.88445203886393962+0.002
22	5.3045980152256203624+0.002
23	5.764638870377662367+0.002
24	6.2446703129877843285+0.002
25	6.7246992572357002167+0.002
26	7.2647205567501582850+0.002
27	7.8047466487623238784+0.002
28	8.36476613137298424156+0.002
29	8.9447883052407294317+0.002
30	9.54479419638892855579+0.002
31	1.0164812572357002167+0.003
32	1.080482954408777620+0.003
33	1.36476613137298424156+0.003
34	1.2144844244259613257+0.003
35	1.284485537183183191+0.003
36	1.43048174561731069+0.003
37	1.50648949486001251850+0.003
38	1.58448949486242117+0.003
39	1.66448948940688688693+0.003
40	1.746489383183156859+0.003
41	1.83049014626889797910+0.003
42	1.916490612784917791+0.003
43	1.9165598620115527530+0.003
44	2.00452853837144111202+0.003
45	2.0944914621965477742+0.003
46	2.186498149488688693+0.003
47	2.28049219669123630710+0.003
48	2.37649240348244300748+0.003
49	2.4745307550780318572+0.003
50	2.5715221724624922966+0.003
51	2.67649340503052411499+0.003

PROBLATE EIGENVALUES H = 7.20

M = 0		M = 1		M = 2	
EIGENVALUE				EIGENVALUE	
L	7.41748072048445624806+000	1	7.5076499599038301749+000	2	1.0765803688562366+001
0	.96650605598900058720+001	2	2.1011238778446573958+001	3	2.494663361220720108+001
1	3.15943384431698978332+001	3	3.350033420692702765+001	4	3.8554733936374893749+001
2	4.184212970121899907+001	4	4.516882763400081252+001	5	5.1983613870201577582+001
3	5.0666329645769891504+001	5	5.66688274393443976149+001	6	6.584301423626551+001
4	5.957415810604891233+001	6	6.898061936464053913+001	7	8.07708786993047494+001
5	7.0392293484226578717+001	7	8.28844761363410827594+001	8	9.722968268604754730+001
6	8.361782270661019356+001	8	9.8723965179755731448+001	9	1.15470180157404021939+002
7	9.9243317883511950316+001	9	1.165841760036715910+002	10	1.5769047654045993018+002
8	1.163626947746563260+002	10	1.364753030727149697+002	11	1.817455433967131925+002
9	1.3616543012916734548+002	11	1.58388845019131883783+002	12	2.077821058539273693+002
10	1.36820353188853590689+002	12	1.823136076226310726+002	13	2.3580939786025512392+002
11	1.425015293551507213+002	13	2.0826557421437742853+002	14	2.65828848564476564746+002
12	2.0842431571759150411+002	14	2.3621917492852263394+002	15	2.9784323433224173006+002
13	2.361556075613+002	15	2.66182749966272947+002	16	3.3185551109207185428+002
14	2.361556075613+002	16	2.962556339252524+002	17	3.6788404752245702182+002
15	2.96308952911+002	17	3.321274902197226845+002	18	4.05871105115208376833+002
16	3.32210306103195050+002	18	3.68105151621839623587+002	19	4.458720292214837264+002
17	3.6818636670043322805+002	19	4.060874565243036009+002	20	4.87889273007752990259+002
18	4.06119542191353905+002	20	4.4607723131516590926+002	21	5.1788927701240339538+002
19	4.461365930325336365+002	21	4.8805697271022672314+002	22	5.7788927701240339538+002
20	4.88116792414530302+002	22	5.3204226497637684836+002	23	6.2589220436147577314+002
21	5.320995923460368410+002	23	5.78033807045055598289+002	24	6.758922052591514309+002
22	5.780456194004195692+002	24	6.2601849348852603741+002	25	7.22897198470397192104+002
23	6.26017134351808635263+002	25	6.7601125390570555071+002	26	7.8189919788979870745+002
24	6.7600596532422351845+002	26	7.82049272209770934660+002	27	8.37900764484045411626+002
25	7.12+0492778422174084+002	27	8.730989737926897267+002	28	9.55903539971146927427+002
26	7.92+0492778422174084+002	28	9.599937412249556106/2+002	29	1.01793070310217987073+003
27	7.92+0492778422174084+002	29	9.59988010987687292064+002	30	1.08190574463683281332+003
28	8.5103146+002	30	1.081908816113776968+003	31	1.507910203153682838961+003
29	8.510317136+002	31	1.1479722743817664591+003	32	1.585910352103134091+003
30	9.51024242450+010	32	1.215974000925822560+003	33	1.215974000925822560+003
31	9.51024242450+010	33	1.28597101262678374226+003	34	1.28590228212455976+003
32	1.0101715036+003	34	1.357986266070771+003	35	1.357986266070771+003
33	1.0101715036+003	35	1.4319557352345493186+003	36	1.4319557352345493186+003
34	1.050505944+003	36	1.507963398132197597+003	37	1.507910203153682838961+003
35	1.148000794+028+501+003	37	1.5859123550563195678+003	38	1.5859123550563195678+003
36	1.239991629+025+003	38	1.6659512304288070866+003	39	1.6659512304288070866+003
37	1.239991629+025+003	39	1.7479513679727676120+003	40	1.7479513679727676120+003
38	1.357989026+030	40	1.831955639510356507+003	41	1.831955639510356507+003
39	1.45198443949512+003	41	1.9179501964106162503+003	42	1.917912466498128111+003
40	1.555978130+030+003	42	1.9179501964106162503+003	43	2.00591203404288459114+003
41	1.652975232+030+003	43	2.0059251163198311374+003	44	2.00591203404288459114+003
42	1.747972559+028+501+003	44	2.0595101634266615+003	45	2.1879137637818015547+003
43	1.841970149+028+501+003	45	2.18794978134156542186+003	46	2.2819132479146918+003
44	1.917967387763+030+003	46	2.28194954330848323513+003	47	2.37791403319706568014+003
45	2.075946287929998983+003	47	2.377944380457521215+003	48	2.4759142852832852295+003
46	2.4759452591258162901A+013	48	2.475946287929998983+003	49	2.5759152151145969252+003
47	2.4759452591258162901A+013	49	2.475946287929998983+003	50	2.6779147319847341162+003
48	2.4759452591258162901A+013	50	2.4759452591258162901A+013	51	2.4759452591258162901A+013

PROLATE EIGENVALUES $\mathbf{H} = 7.40$		$\mathbf{H} = 1$		$\mathbf{H} = 2$	
\mathbf{L}		$\mathbf{EIGENVALUE}$		$\mathbf{EIGENVALUE}$	
0.618617953/5921183016+000	1	7.705536914344226217+6+000	2	1.09554575789962772546+001	2
2.0272721941965710020+001	2	2.0620402225848430423+001	3	2.55031930136960923682+001	3
5.26259237849563875409+001	3	3.4469537866235+095+001	4	3.944032563176334102+001	4
4.3345381764801515248+001	4	4.6460783598715687605+001	5	5.312966878294631992+001	5
2.2474422584062470521+001	5	5.816876680449138+237+001	6	6.71604078563609154+6+001	6
6.1433511301610610842601+001	6	7.0560312766838492818+001	7	8.217999782658329634+001	7
7.21469130811661012423+001	7	8.4468032713600339169+001	8	9.863148653953045282+001	8
6.533664307384936209+001	9	1.0029126752739629894+002	9	1.1693799459714367388+002	9
1.008545220021053257+002	9	1.1813364889633892145+002	10	1.370811670818162088+002	10
1.165405364+005/036204+002	10	1.38008619650018537543+002	11	1.5916695255953447050+002	11
1.5832053984589536+002	11	1.599096605885657399712+002	12	1.8322163447987002412+002	12
1.5012942299468272594+002	12	1.8383191498772976393+002	13	2.092542160515239231+002	13
1.84036252742461714+002	13	2.097693388343139149+002	14	2.37283835503636896776+002	14
2.024407413+02+6370041+002	14	2.377034694590810492+002	15	2.673022829984713022+002	15
2.57864313+030211464+002	15	2.66678013483575399447+002	16	2.99772142934001993+002	16
2.570134511521152853+002	16	2.9964372142934001993+002	17	3.332639160833692829+002	17
2.9975309922884+592+7+002	17	3.3361497676758643119+002	18	3.69344785922629581+002	18
3.3571125944+591251120+002	18	4.0756890262545120+002	19	4.073408727208683291+002	19
3.696761209015495761580+002	19	4.0756890262545120+002	20	4.473+026090175419+002	20
4.0764628659432+63123+002	20	4.4755205566985801604+002	21	4.8935019881663925922+002	21
4.4762076879911+086394+002	21	4.8935660041425052867+002	22	5.3353646492187612+1+002	22
4.895987542+521+81410+002	22	5.792131699596413+45+002	23	5.7936553154138664423+002	23
2.335796401+34+42589+002	23	6.2735966596162221+002	24	6.2735966596162221+002	24
2.795629278+0+0102342+002	24	6.275000751318311938+002	25	6.7361026090175419+002	25
6.275482331+96628692+002	25	6.774916833455703798+002	26	7.2936279846917881227+002	26
6.77352433+361914+14+002	26	7.29437309672043975+002	27	7.8336432948634263103+002	27
7.29237641+0061244382+002	27	7.83476133860860932401+002	28	8.39656614961361962+6+002	28
7.835134064+684613117+0+02	28	8.394654694515916071+002	29	8.9736682776461037222+002	29
8.392141793+02+85694+7+002	29	8.97463613162621186+002	30	9.5736785154527912945+002	30
9.744518628692+002	30	9.57451249113998924+002	31	1.0193687655920646529+003	31
9.744533+361914+14+002	31	1.0194538426088108275+003	32	1.083369522856327597+003	32
1.1+194812+32436+2+692+1+0+03	32	1.0834895864490422117+003	33	1.1493729198139336676+003	33
1.3475422+590+5+490+32+0+03	33	1.1494492102212343994+003	34	1.21737044554610906+003	34
1.249469797+013+59033+0+03	34	1.21744122398739837+0+03	35	1.28737354603159793+003	35
1.249469797+013+59033+0+03	35	1.28737354603159793+003	36	1.35952056297396983+003	36
1.27464056+4162+8771+9+003	36	1.35943725471301906+003	37	1.433372535747890559+6+003	37
1.27464056+4162+8771+9+003	37	1.35943725471301906+003	38	1.509372971770772041+003	38
1.435451624+6652+12442+0+03	38	1.509429205703196447+0+03	39	1.58737354603159793+003	39
1.504447950+21+7422+0+03	39	1.58746753521553+6225+0+03	40	1.66737354603159793+003	40
1.25454548354+4+45795+0+03	40	1.6674244799842496520+0+03	41	1.7493740+03699051040495+003	41
1.257459944+164+60521+0+03	41	1.7494236820808167094+003	42	1.8334204031807163812+0+03	42
1.3645+616+161+705+0+03	42	1.8334204031807163812+0+03	43	1.919374662197070875+003	43
1.435451624+6652+12442+0+03	43	1.919485716375991877+003	44	2.00737492277840689351+003	44
1.504447950+21+7422+0+03	44	2.0074168176717361154+0+03	45	2.0937516319852992+003	45
1.257459944+164+60521+0+03	45	2.0974152630348762649+0+03	46	2.1893753950851040495+003	46
1.257459944+164+60521+0+03	46	2.189437660211389818+0+03	47	2.28337354603159793+003	47
1.3645+616+161+705+0+03	47	2.283423622826162+0+03	48	2.379375885163794000+003	48
1.434524614+60+0+03	48	2.379410423434088213+0+03	49	2.477098050452700530+0+03	49
1.504447950+21+7422+0+03	49	2.477098050452700530+0+03	50	2.57737615549084698+003	50
1.257459944+164+60521+0+03	50	2.5774086355159220286922+0+03	51	2.67937631559220286922+0+03	51

PROBLATE EIGENVALUES H = 7.60

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M = 0		M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	6.81967453638873881476+000	1	7.90357830266236977399+000	2	1.11456709047800711260+001
1	2.087914440480390213702+001	2	2.219440678167809649+001	3	2.6062792175147297240+001
2	3.3555037823349340603+001	3	3.544317672886739275773+001	4	4.03344614523992267289+001
3	4.4817231605376650213+001	4	4.77674575485183076440+001	5	5.420375592780015474+001
4	5.4300286610025163167+001	5	5.9699583715116405409+001	6	6.8266753829417963575+001
5	6.35565302382938676791+001	6	7.21844365081829742293+001	7	8.3626421041610587273+001
6	7.39726061793825720+001	7	8.6102857720039338713+001	8	1.0017282977183618669+002
7	8.70607227527775+001	8	1.01907997215548204987+002	9	1.18449005506827548774+002
8	1.02519037358735493521+002	9	1.1973087447305107733+002	10	1.3858989840n18010508+002
9	1.20268543103542634122+002	10	1.39589342093667954602+002	11	1.6088666334943750009+002
10	1.3992365574142218425+002	11	1.6147822025382492735+002	12	1.8441167243522378676+002
11	1.6104406404050193597+002	12	1.8539039421481964101+002	13	2.10776791507397541177+002
12	1.8566781518036282478+002	13	2.13207911358379+002	14	2.3880105365027722871+002
13	2.115018485492410786+002	14	2.3926321183058656720+002	15	2.68818126732273133292+002
14	2.394176292357660751+002	15	2.69216518268775998666+002	16	3.083050568749251149+002
15	2.693405439872418960+002	16	3.011777825261444036643+002	17	3.348395993373065307679+002
16	3.012936884242996251293+002	17	3.3514535584299625129+002	18	3.7084667402278098738+002
17	3.3524128661225371696+002	18	3.71117848991795688912+002	19	4.0885248468345040901+002
18	3.712083065202425564+002	19	4.09094408995735938944+002	20	4.488563030666008294057+002
19	4.09152388240329261+002	20	4.49074254881832790484+002	21	4.9059678186837085561+002
20	4.491469415690720+002	21	4.910568020024690510+002	22	5.80864637982190595013+002
21	4.9112535759152666114+002	22	5.350415907316403879408+012	23	6.2886648169240534227+002
22	5.35101337942321312831+002	23	5.81028254558809429865+002	24	6.79868020324098165934+002
23	5.81082202559181351360+002	24	6.290144985559181351360+002	25	7.000693158819173764+002
24	6.29066515421701828953+002	25	6.790068347953790024+002	26	7.30996813444803790024+002
25	6.790511323944496811+002	26	7.3099681344480390480+002	27	7.84870451737472986700+002
26	7.31039194246152221+002	27	7.84988527011374354560+002	28	8.4098713565109585345R+002
27	7.8502290286743456+002	28	8.098109012340148219+002	29	9.9887216819731748774+002
28	8.4101762356513+002	29	8.98973390754362839729+002	30	9.589683471011408274+002
29	8.90088689233505324+002	30	9.589683471011408274+002	31	1.020873418050663865+003
30	9.590001593058060444+002	31	1.0209628423565270285+003	32	1.0848701893980669358+003
31	1.020942531219429632+003	32	1.0849578459124282710+003	33	1.1508744923721412058+003
32	1.0649887901549363720+003	33	1.150953287519949283+003	34	1.218875246779131924+003
33	1.150979554380591046+003	34	1.21894911763505062289+003	35	1.288475246779131924+003
34	1.216973854282880925+003	35	1.2889452935846920147+003	36	1.3608756179156300686+003
35	1.268961630527133316+003	36	1.3609417773914502Y00+003	37	1.43487591679341239558+003
36	1.3609583124904860+003	37	1.434938561662004669+003	38	1.510876158463552146+003
37	1.434959412239297911+003	38	1.5109355453499151U2+003	39	1.588827773261845243+003
38	1.51092533301734412+003	39	1.5889327773261845243+003	40	1.68887664916914645952+003
39	1.546951561222132+003	40	1.6689302110349012345+003	41	1.75092782703132513627+003
40	1.66896065489406070+003	41	1.78349256081948681809+003	42	1.8386770320061065785+003
41	1.75094431947547532+003	42	1.83892354110691623084+003	43	1.9208771893710913927+003
42	1.834944801529223864+003	43	1.92092354110691623084+003	44	2.0086775195609973189+003
43	1.920938868019614493+003	44	2.00892161057193982+003	45	2.0988774925693817836+003
44	2.008935364059412812+003	45	2.0989198067794706812+003	46	2.1908776220858109904+003
45	2.09893539101262480089+003	46	2.19091811613263057592+003	47	2.26867741646835340886+003
46	2.19093515143652642314+003	47	2.2849165314893139217+003	48	2.3608778522513258035+003
47	2.284929461525338402+003	48	2.3809150458379463142+003	49	2.4188774763328986+003
48	2.35092440610596292+003	49	2.4789136447045394549+003	50	2.5788780499943508636+003
49	2.47892554159432191941+003	50	2.57891232789285773b4+003	51	2.6600781385876537275+003

PHOLATE EIGENVALUES $\lambda = 7.80$		$m = 1$		$m = 2$	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	7.0206590611598294499165+0.000	1	8.10175736085096891993+0.000	2	1.13364748791780602423+0.001
1	2.1486000137391107813+0.001	2	2.6625157836394155658+0.01	3	2.6625157836394155658+0.01
2	3.468114236489118942+0.001	3	3.620391163755324741+0.01	4	4.12364973174837738+0.001
3	4.6288494011428755108+0.001	4	4.9086938383822443023+0.001	5	5.5474818272877286659+0.001
4	5.6149158354464+0.001	5	6.12593356655710871352+0.001	6	6.98809840043575166810+0.001
5	6.5331813176000473823+0.001	6	7.3851957942697676204+0.001	7	8.510945188856964174+0.001
6	7.5864453230624120194+0.001	7	8.786625746306676204+0.001	8	9.510765670183822547155+0.002
7	8.89452011701538+9.35b44+0.001	8	1.0357452182968110568+0.001	9	1.200331285608953136+0.002
8	1.0423577123815+109251+0.002	9	1.213768262002055940+0.002	10	1.4016061149228705356+0.002
9	1.218451835b206329113+0.002	10	1.412178630823911112+0.002	11	1.622500961138895253+0.002
10	1.41572446n53+0.023145+0.002	11	1.6309288677613587108+0.002	12	1.8699480033246930107+0.002
11	1.633761403-428618847+0.002	12	1.8699480033246930107+0.002	13	2.12338460002021919673+0.02
12	1.8722257712232829826+0.002	13	>1.291502923942691508+0.002	14	2.4036110613594367616+0.002
13	2.13110A966n676+0.002	14	2.41015786n734+23066+0.002	15	2.7037654181423822261+0.002
14	2.41015786n734+23066+0.002	15	2.70798418A70900794326+0.002	16	3.02387352456060+0.002
15	2.7093633938211296731+0.002	16	3.0275481329317991427+0.002	17	3.36395107110955546414+0.002
16	3.026754522820390170+0.002	17	3.3671832525748287+0.00+0.002	18	3.7240077529253350325+0.002
17	3.36874562278452+0.002	18	4.00726874562278452+0.002	19	4.504049966984817646+0.002
18	3.7274319283081-350463+0.002	19	4.506661093949714525+0.002	20	4.506661093949714525+0.002
19	4.107485158734229964+0.002	20	4.5063842691732120561+0.002	21	4.9241061193781206809+0.002
20	4.507151677153477759+0.002	21	4.926187887397721059+0.002	22	5.36412498256020942611+0.002
21	4.92680223113129124602+0.002	22	5.3661891222163+0.002	23	6.304151399283471840809+0.002
22	5.36664783m8953114833+0.002	23	5.325866947018884850190+0.002	24	6.3057347.566118061205+0.002
23	5.8264429461321193121+0.02	24	5.30512652069328242+0.002	25	6.804160677333435948+0.002
24	6.3762616521706+0.02	25	6.805617207852639398+0.002	26	7.3241681255894750190+0.002
25	6.806103754769+0.13874+0.002	26	7.32551331033688208481+0.003	27	7.8641741424334610853+0.002
26	7.3259388468311205/2+0.002	27	7.86567223897381564+0.003	28	8.4241793293771635955+0.002
27	7.56513582545/89405/ub+0.002	28	7.8233638513806233689+0.002	29	9.07141830277873159778+0.002
28	8.42614459+0.2238+0.002	29	7.8204977805334327388+0.003	30	9.60418631236910284486+0.002
29	9.002622702m59220263+0.002	30	7.805131591184632473+0.002	31	1.024189420186695060+0.003
30	9.605622707152+0.002	31	1.0225131033688208481+0.003	32	1.0664191262637297736+0.003
31	1.0224455511661545043+0.003	32	1.086567223897381564+0.003	33	1.152419315159788468+0.003
32	1.0463649884463696394+0.003	33	1.1525029700470474794+0.003	34	1.2204194679067247849+0.003
33	1.15253193c75021954+0.003	34	1.2204977805334327388+0.003	35	1.2904930451351994768+0.003
34	1.220523191505214354+0.003	35	1.2904930451351994768+0.003	36	1.362489453686400221+0.003
35	1.290580131705435943+0.003	36	1.362489453686400221+0.003	37	1.436419797503431962+0.003
36	1.362512706+0.13874+0.002	37	1.4364852791493562+0.003	38	1.5124624491193003682+0.003
37	1.436501418-/84+11443+0.003	38	1.5124624491193003682+0.003	39	1.594193839889688+0.003
38	1.512503508/31/3052/8+0.003	39	1.590479366192115168+0.003	40	1.67041999501378909+0.003
39	1.590491366/31121105+0.003	40	1.6704765091787128217+0.003	41	1.752473705251769167+0.003
40	1.670492704582900640+0.003	41	1.752473705251769167+0.003	42	1.836472764348922160+0.003
41	1.752416811522252162+0.03	42	1.836472764348922160+0.003	43	1.92420108236144562+0.003
42	1.8364883435949121481+0.03	43	1.924668517882752265+0.003	44	2.0104201350426537545+0.003
43	1.9224823333542819156+0.03	44	2.0104667815896227682+0.003	45	2.1042015742127551718+0.003
44	2.010482330/510804322+0.03	45	2.10046475246478084294+0.003	46	2.19242017601825952138+0.003
45	2.100492704582900640+0.003	46	2.1924668517882752265+0.003	47	2.2864610708428059397+0.003
46	2.1924707817342997726+0.03	47	2.2864610708428059397+0.003	48	2.38242020041972598+0.003
47	2.286474697-3740495+0.03	48	2.3824582524800104499+0.03	49	2.4804202142172805708+0.003
48	2.38242462146/-273887+0.03	49	2.4804582524800104499+0.03	50	2.58042022507444902+0.003
49	2.4804703624068+0801951+0.03	50	2.58045634477047191056+0.003	51	2.682420229010927847+0.003

PROLATE EIGENVALUES H = 8.00

H = 0		H = 1		H = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	7.221578930697648862564+000	1	8.3000596800985177596+000	2	1.15278197926689866016+001
1	2.019215419726+50308933+001	2	2.338069727147452012+001	3	2.71900450773859921660+001
2	3.5706416737114919806886+001	3	3.74007406174424800244+001	4	4.21457799190978954535+001
3	4.7757098595191876254+001	4	5.04170233959225588587+001	5	5.6671766943338499857+001
4	5.8016770495724916626+001	5	6.28460371618516025071+001	6	7.12819872693858241983+001
5	6.7364750334659+006	6	7.556165666764802194+001	7	8.66284135297932077972+001
6	7.782522329296109591925+001	7	8.95191067335258760761+001	8	1.032815090895964554+001
7	9.0691430428460172744+001	8	1.05293476354097269+002	9	1.21600993789326125236+002
8	1.06011693905270716030+002	9	1.2307181294313047897+002	10	1.417662108750974784+002
9	1.23577157716514901465+002	10	1.428903747419167287+002	11	1.63857466614316830396+002
10	1.4327579222951356246+002	11	1.6475014031243691341+002	12	1.8791083492952384090+002
11	1.65055540807043839942+002	12	1.8864326190627232257+002	13	2.13943494543396948993+002
12	1.888887879090452028062+002	13	2.14554657094296057783+002	14	2.4196420043274679476+002
13	2.1475915309864335733+002	14	2.4249287019737645167+002	15	2.7197769405953356144+002
14	2.42656221527623494910+002	15	2.4242395453880286650+002	16	3.03986667617300642436+002
15	2.7257305073316040574+002	16	3.0437161662387790824+002	17	3.37996905766053861419+002
16	3.0450484392912691832+002	17	3.3633236301765799915+002	18	4.1199765698749922086+002
17	3.384481902050397521+002	18	3.7429961561344146608+002	19	4.52001737490619127263+002
18	3.7440060543773492029+002	19	4.12270779521688126932+002	20	4.94003091294229866751+002
19	4.12360245145189659061+002	20	4.5224466115816820164+002	21	5.38004010033552122498+002
20	4.223257064309958522+002	21	4.942266900456063302+002	22	5.8400461962316853817+002
21	4.94295921919050252+002	22	5.3820322463421495696+002	23	6.3200507984600026996+002
22	5.3M270053633983433946+002	23	5.84186722709263715334+002	24	6.8200512799676435651+002
23	5.94427420856762085+002	24	6.3217791242036587475+002	25	7.34005351990039013889+002
24	6.322275612425538109885+002	25	6.9212112424538029842278+002	26	7.8800538413224721979+002
25	6.82209986776231/161511+002	26	7.34147114504812866092+002	27	8.44005357037520632113+002
26	7.341943772094/4486712+002	27	7.88136676427465047877+002	28	9.0200528777205669853+002
27	7.8818044226650845105+002	28	8.441230877987133544+002	29	9.620051886782261908+002
28	9.44167847647644798646+002	29	9.02210387206590284+003	30	1.02400506960786254983+003
29	9.021567355876751207+002	30	9.621112424538029842278+002	31	1.0880049370179086468+003
30	9.6214659180880409032+002	31	1.024143246754012102+003	32	1.1540047959762629778+003
31	1.0241374122694384777+003	32	1.08809803168541425736+003	33	1.222004522905667042052+003
32	1.088129051656678956367+003	33	1.15400422905667042052+003	34	1.29200452089425912124+003
33	1.1541214570971670144+003	34	1.222004522905667042052+003	35	1.36400435567336856072+003
34	1.2221145036505754916+003	35	1.2920045222216547779983+003	36	1.43800421018667494846+003
35	1.2921081299743250265+003	36	1.36407799415391621385+003	37	1.51400406748777956223+003
36	1.754079050120/619062+003	37	1.438073714041571213995+003	38	1.59200465667378362048+003
37	1.36410227674442635+003	38	1.5140046946356501007626+003	39	1.6720037932276661398+003
38	1.438068829811083566+003	39	1.5920046460299919563+003	40	1.7540036625149997844+003
39	1.5140910681149508817+003	40	1.672003722216547779983+003	41	2.1940030783513891340+003
40	1.592087306476501930+003	41	1.754004022546381920674+003	42	2.2880029751915431416+003
41	1.672083059856260412352+003	42	1.8380743105810808923+003	43	1.92400341489611432854+003
42	1.754079050120/619062+003	43	1.9240498260541272603+003	44	2.012003298103954045325+003
43	1.36410227674442635+003	44	2.0120523972542387725+003	45	2.10200318594902199433+003
44	1.438068829811083566+003	45	2.1020523972542387725+003	46	2.1940030783513891340+003
45	2.0120687639843/01182+003	46	2.1940799632309638129+003	47	2.28800287634501726658+003
46	2.10206557705360712966+003	47	2.288060078949088040+003	48	2.4820027816525317965+003
47	2.194062692449964612+003	48	2.3840441270871339101+003	49	2.5820026990972198349+003
48	2.36405787740446653+003	49	2.462023655051007626+003	50	2.58204070727677073547+003
49	2.48204070727677073547+003	50	2.60400260413211205227+003	51	2.60400260413211205227+003

PROLATE EIGENVALUES H = 10.00

M = 0		EIGENVALUE		L		EIGENVALUE		L		EIGENVALUE		M = 1		EIGENVALUE		L		EIGENVALUE		M = 2		EIGENVALUE																																																																																																																																																																																																
9	0	9.25430429724994515101+000	1	1.028776676739146817708+001	2	1.34630843187435830224+001	1	2.8133463732826127614+001	2	2.9389180416144914701+001	3	3.29381783238490544409+001	3	4.55689526502341563+001	4	4.73015765926166+001	4	5.15248465577210860345+001	5	6.2297730450774456050+001	6	6.410633901051295253002+001	5	6.9303076238796550984+001	6	7.6493248421446505281+001	7	7.9772898552789566161+001	6	8.6507545068132547355+001	7	8.939226723885025301243+001	6	9.4621990706494295731+001	7	1.03598469132763093321+002	7	1.0105543072680950619+002	7	1.094501632680950619+002	8	1.25271446657879922906+002	8	1.25271446657879922906+002	9	1.3995694423703874166+002	9	1.428115626640753529+002	10	1.60273042269502631066+002	10	1.6236698550363072848+002	11	1.8400202209435+002	12	2.0706761117858750195+002	12	2.3242442208186624009+002	13	2.334712739057753499+002	13	2.604047842652823561+002	14	2.90378877567037274788+002	14	2.911238822151453252+002	15	3.223513819165979981+002	15	3.22994131936194316869+002	16	3.56885451022485172592+002	16	3.9229921311949918312+002	17	3.92793554102107947615+002	17	4.3027589889416076527+002	18	4.3071489545517315+002	18	4.70254622758432508+002	19	5.122353884903969816+002	19	5.122353884903969816+002	20	5.562178884184848385+002	20	5.562178884184848385+002	21	6.0220213616282491626+002	21	6.0220213616282491626+002	22	6.5018502642751058+002	22	6.5018502642751058+002	23	7.00174943300353563787+002	23	7.00174943300353563787+002	24	7.521632331984874826+002	24	7.521632331984874826+002	25	8.061119338028108787+003	25	8.061119338028108787+003	26	8.62142940352890519+002	26	8.62142940352890519+002	27	9.172057189201370727+003	27	9.172057189201370727+003	28	9.20999379616167538+003	28	9.20999379616167538+003	29	9.801261512794275168+002	29	9.801261512794275168+002	30	1.042211675928601986+002	30	1.042211675928601986+002	31	1.04222599275974481570+003	31	1.04222599275974481570+003	32	1.1061119338028108787+003	32	1.1061119338028108787+003	33	1.172057189201370727+003	33	1.172057189201370727+003	34	1.20999379616167538+003	34	1.20999379616167538+003	35	1.38208982775204020024+003	35	1.38208982775204020024+003	36	1.4560853033991923989+003	36	1.4560853033991923989+003	37	1.5320811016111332442+003	37	1.5320811016111332442+003	38	1.6100772189514739613+003	38	1.6100772189514739613+003	39	1.8007358376075564900+003	39	1.8007358376075564900+003	40	1.85606740463305844213+003	40	1.85606740463305844213+003	41	1.94206409305126742570+003	41	1.94206409305126742570+003	42	1.95618010158471351+003	42	1.95618010158471351+003	43	2.0300613298508365334+003	43	2.0300613298508365334+003	44	2.1205630820698344215+003	44	2.1205630820698344215+003	45	2.306054023526847429+003	45	2.306054023526847429+003	46	2.4021670454502034426+003	46	2.4021670454502034426+003	47	2.500049847894170271+003	47	2.500049847894170271+003	48	2.60004793587010421047+003	48	2.60004793587010421047+003	49	2.70204613464818359981+003	49	2.70204613464818359981+003	50	2.80010765836231830005+003	50	2.80010765836231830005+003	51	2.90378877567037274788+002	51	2.90378877567037274788+002

PROBLATE EIGENVALUES $m = 20.00$

$m = 0$		$m = 1$		$m = 2$	
		EIGENVALUE		EIGENVALUE	
L		L		L	
0	1.9239975792260223604•001	1	2.02670596762866436125•001	2	2.3334807195466015800081•001
1	5.8198433945/121161616•001	4	5.92844987352578073014•001	3	6.2541745799508004784•001
2	9.60903819572856381•001	5	9.724666195697814149•001	4	1.0071375236455177369•002
3	1.32865216147176207000•002	4	1.3410648835253812027•002	5	1.378255275759197•002
4	1.684631029103590522•002	5	1.6980967150544179936•002	6	1.7383975280355980965•002
5	2.028120486871877943722•002	6	2.042928775499974926•002	7	2.087167933289572490•002
6	2.35822658718709669472•002	7	2.374815944828778778739•002	8	2.4241854977298371651•002
7	2.67380424589368762d•002	8	2.6928824002660214034•002	9	2.74919726790730636098•002
8	2.97326228•687847513•002	9	2.996139602722732451•002	10	3.06228751697625403305•002
9	3.254191404587763699•002	10	3.2856854788825384272•002	11	3.364285945004210640•002
10	3.51283861779816234•002	11	3.5555048715385684381•002	12	3.657465538048600900•002
11	3.74364194826793514•002	12	3.81438568899174731871•002	13	3.94617521735638909671•002
12	5.9493518951385531309•002	13	4.1679462332315041403•002	14	4.23668999586654797•002
13	4.1503421939267762•002	14	4.3224392770634753588•002	15	4.45577006366463239•002
14	4.573662242175864522•002	15	4.602898780562077834•002	16	4.84904870744570•002
15	4.63038092689679578•002	16	4.8997739905123593039•002	17	5.17998754793328395•002
16	4.918337061732123421•002	17	5.219748151265071122•002	18	5.530554056242809300•002
17	5.23557242546332•002	18	5.62659298553535739•002	19	5.9014926549436347623•002
18	5.57364015447726073•002	19	5.92818376786543792246•002	20	6.29117087437630524•002
19	5.937219478430913486•002	20	6.315815921263554879•002	21	6.7026449148812959783•002
20	6.323442213265872673•002	21	6.725171004011594876•002	22	7.138875270185998054•002
21	6.73128397383539683•002	22	7.155942714812777705•002	23	7.5928088456016942161•002
22	7.1616840759612682894•002	23	7.607381792942747•002	24	8.062476057136659436•002
23	7.61293822433804bb62•002	24	8.080815963126383723•002	25	8.5146478515513•002
24	8.06531535455212421762•002	25	8.5745700540793942316•002	26	9.070818188309175873•002
25	9.078611443250303502•002	26	9.08025795358275922•002	27	9.614124742957709388•002
26	9.09240679452992•002	27	9.6240810639233612•002	28	1.07472787931931350•003
27	9.62740606779/99359325•002	28	1.0179651810455065122•003	29	1.4633613035075035•003
28	1.116266924214/2032022•003	29	1.07566834063967004•003	30	1.154446863028724226•003
29	1.3564616580949891•003	30	1.19688151409252364497•003	31	1.259921938704126107•003
30	1.13546490725224610712•003	31	1.19688151409252364497•003	32	1.322696890397589796•003
31	1.19712064353488/2603•003	32	1.2605855044015741215•003	33	1.3934969412804974488•003
32	1.26080794014053193•003	33	1.52631569133514157897•003	34	1.4633613035075035•003
33	1.326522146160/9538182•003	34	1.79406900613834141106•003	35	1.4633613035075035•003
34	1.39426194901010659322•003	35	1.4638430218860552622•003	36	1.5521268872128649927•003
35	1.464023692213973574•003	36	1.53663534228391254•003	37	1.6069647973311498525•003
36	1.535804967985310888•003	37	1.6094440763249907322•003	38	1.6848132100912492058•003
37	1.6096365362190211•003	38	1.685267536109748936•003	39	1.7626742610752022•003
38	1.6854179487/10861249•003	39	1.763104245161475161•003	40	1.8425464986183755523•003
39	1.763246334848580694402•003	40	1.842952908653080194•003	41	2.3639492319891713206•003
40	1.843087347737783619•003	41	1.9248123845422394592•003	42	2.008319072130223341•003
41	1.9249398072587825878•003	42	2.0086816645625136530•003	43	2.0942104040603022370•003
42	2.0088026278098967181•003	43	2.1455985733492400925•003	44	2.18211796092180585181•003
43	2.09467481280593452•003	44	2.182446170637143452•003	45	2.2720720938381512175•003
44	2.1825555915984411524•003	45	2.2723398956937196480•003	46	2.3639492319891713206•003
45	2.272441775/0336809•003	46	2.3642404013951487841•003	47	2.451647124260970527•003
46	2.36433997756513329•003	47	2.458147124260970527•003	48	2.55318619322753020•003
47	2.4582421812483656424•003	48	2.5540595551898178285•003	49	2.65117176311917038•003
48	2.55415046229440085196•003	49	2.65197723337145859882•003	50	2.7516495873494563816•003
49	2.6520642665290947817•003	50	2.75189975927973574191•003	51	2.8515876522139740523•003

PROLATE EIGENVALUES $\lambda = 40.00$ $M = 0$

EIGENVALUE

3.924515864	-2312807492+001	1	4.0268151803713306413+001	2	4.322971138687762252725+001	2
1.182254667	d6902735228+002	2	1.19226550449219127597+002	3	1.223505526332374242287+002	3
1.96175382.	.d1640410392+002	5	1.9724472047833323828+002	4	2.0045255703575599085+002	4
2.730734224	2202/21812+002	4	2.7417462012734134660+002	5	2.77477919843085249326+002	5
3.484965414	h6u2304813+002	5	3.50344010483736532551+002	7	3.5344010483736532551+002	7
4.2361937	h75975918+002	6	4.2479404931869346686+002	7	4.283572776326687331+002	7
4.97216812.	.52401197111+002	7	4.9843293513977072524+002	8	5.0206057081754210891+002	8
5.696580985	h122451381+002	8	5.70920756824411051925+002	9	5.740740236682640794+002	9
6.409121201	h1461614450+002	9	6.42226624419123133886+002	10	6.4616827371542836884+002	10
7.109441801	h7864295205+002	10	7.123168350259389649493+002	11	7.1643219144567721778+002	11
7.797166534	h0103599139+002	11	7.81154422693298862326+002	12	7.8546566620994948630+002	12
8.47165353.	.55280391885+002	12	8.48698619382149793882+002	13	8.53233242666767323525+002	13
9.131047187	h1374641792+002	13	9.14904193532399107415+002	14	9.1969523799161307619+002	14
9.78020771	h160462240+002	14	9.7972065470697158620+002	15	9.848094198925747877+002	15
1.04127273	h8698765192+003	15	1.0430911214106624866+003	16	1.04852998648214305450+003	16
1.102996531	h5412247858+003	16	1.1049505050811444636+003	17	1.1108076857363538077+003	17
1.163092184	h1231d121901+003	17	1.16522623597199662649+003	18	1.1715914504422910964+003	18
1.221479957	h22191919662+003	18	1.22383192248714037805+003	19	1.2308250357595959968+003	19
1.278034356	h19064125762+003	19	1.280666831252081138795+003	20	1.2846619890474202694+003	20
1.33260426	h630009816+003	20	1.33526033860113996428+003	21	1.3444594721129329785+003	21
1.58498355	h198492758+003	21	1.3865572978308979571+003	22	1.39881174822915143829+003	22
1.434897201	h92844776+003	22	1.4393475240505281266+003	23	1.4515746225131931412+003	23
1.481181594	h3249586+003	23	1.4879152399888361288+003	24	1.492927795422664152988+003	24
1.5252752	h422505/363308+003	24	1.5343889916407497191+003	25	1.5532419124718770466+003	25
1.26455613	.35682915911/3+003	25	1.57933358817008928947+003	26	1.60510/4488900704341+003	26
1.0007928084	h2220702262+003	26	1.623866887052542049933+003	27	1.65327169635293231855+003	27
1.63/3374	h434539485+003	27	1.67044626165053066508+003	28	1.7003627505264034922510+003	28
1.67443961	h42395862909/3+003	28	1.716935954043875346+003	29	1.750361346622266638+003	29
1.72208777	h21182/0113+003	29	1.7671482447331522192+003	30	1.81212175035775923910+003	30
1.77079391	h15985801532+003	30	1.82015768665029399918+003	31	1.8893287352895537202+003	31
1.822961112	h4950113763+003	31	1.87592583049654291794+003	32	1.92875/85695383316425+003	32
1.976200272	h14894824+003	32	1.9343610953402981412+003	33	1.99052115143325422510+003	33
1.935274661	h3020/15021+003	33	1.995370526403492337+003	34	2.05461165216357584078+003	34
1.99/01141	h9198563/42+003	34	2.0588736644705816390+003	35	2.1210215794534827901+003	35
2.06050803	h21653901162+003	35	2.1248027940339263045+003	36	2.1897118021336675860+003	36
2.126073486	h52850942+003	36	2.1931022290588660986+003	37	2.266655756016000309+003	37
2.19423989	h48511666262+003	37	2.2637255370351632916+003	38	2.339321653841640676799619+003	38
2.26475287	h2239504+003	38	2.3366333693504096266+003	39	2.409237090187920914+003	39
2.337568091	h802015/501+003	39	2.411793338460804573+003	40	2.486622102338921117+003	40
2.4126467	h792h51432441+003	40	2.4891779923992313097+003	41	2.56658/57195921159733+003	41
2.4899641	h81333905201+003	41	2.56876054069676886+003	42	2.66850n63314454758317+003	42
2.709488184	h295403557/0+003	42	2.6505230703957332940+003	43	2.7256198249363428494+003	43
2.65119810	h801745/7483+003	43	2.7344670620962175441+003	44	2.819757769467407379+003	44
2.73507597	h42208207746+003	44	2.8205137931738086539+003	45	2.907064525422886526+003	45
2.821103961	h245872026+003	45	2.908761609684606631+003	46	2.99/48400070183903269+003	46
2.909267676	h81333905201+003	46	2.999037086291316611+003	47	3.0091349409010913+003	47
2.99955532	h152589/005+003	47	3.0914665267030149394+003	48	3.18461135109363621253+003	48
3.091954616	h80488930/+003	48	3.1859958521334909695+003	49	3.281307598776118936+003	49
3.166456576	h4510824852/+003	49	3.282615243909698766+003	50	3.380079101283904084+003	50
3.26505151615	h412/42446/+003	50	3.46092184733669427955+003	51	3.4813131914697627473+003	51

 $M = 1$

EIGENVALUE

L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE	L	
1	4.0268151803713306413+001	2	4.322971138687762252725+001	3	4.3229711386877622527287+002	3	
2	1.19226550449219127597+002	4	2.0045255703575599085+002	5	2.77477919843085249326+002	5	
3	1.9724472047833323828+002	4	2.1248027940339263045+003	5	2.77477919843085249326+002	5	
4	2.7417462012734134660+002	5	2.1248027940339263045+003	6	3.5344010483736532551+002	6	
5	2.7307342242202/21812+002	6	2.1248027940339263045+003	7	4.283572776326687331+002	7	
6	3.484965414	h6u2304813+002	7	2.1248027940339263045+003	8	5.0206057081754210891+002	8
7	4.2361937	h75975918+002	8	2.1248027940339263045+003	9	5.740740236682640794+002	9
8	5.696580985	h122451381+002	9	2.1248027940339263045+003	10	6.4616827371542836884+002	10
9	6.409121201	h1461614450+002	10	7.123168350259389649493+002	11	7.1643219144567721778+002	11
10	7.109441801	h7864295205+002	11	7.81154422693298862326+002	12	7.8546566620994948630+002	12
11	8.47165353.	.55280391885+002	12	8.48698619382149793882+002	13	8.53233242666767323525+002	13
12	9.131047187	h1374641792+002	13	9.14904193532399107415+002	14	9.1969523799161307619+002	14
13	9.78020771	h160462240+002	14	9.7972065470697158620+002	15	9.848094198925747877+002	15
14	1.04127273	h8698765192+003	15	1.0430911214106624866+003	16	1.04852998648214305450+003	16
15	1.102996531	h5412247858+003	16	1.1049505050811444636+003	17	1.1108076857363538077+003	17
16	1.163092184	h1231d121901+003	17	1.16522623597199662649+003	18	1.1715914504422910964+003	18
17	1.221479957	h22191919662+003	18	1.22383192248714037805+003	19	1.2308250357595959968+003	19
18	1.278034356	h19064125762+003	19	1.280666831252081138795+003	20	1.2846619890474202694+003	20
19	1.33260426	h630009816+003	20	1.33526033860113996428+003	21	1.3444594721129329785+003	21
20	1.58498355	h198492758+003	21	1.3865572978308979571+003	22	1.39881174822915143829+003	22
21	1.434897201	h92844776+003	22	1.4393475240505281266+003	23	1.4515746225131931412+003	23
22	1.481181594	h3249586+003	23	1.4879152399888361288+003	24	1.492927795422664152988+003	24
23	1.5252752	h422505/363308+003	24	1.5343889916407497191+003	25	1.5532419124718770466+003	25
24	1.26455613	.35682915911/3+003	25	1.57933358817008928947+003	26	1.60510/4488900704341+003	26
25	1.0007928084	h2220702262+003	26	1.623866887052542049933+003	27	1.65327169635293231855+003	27
26	1.63/3374	h434539485+003	27	1.67044626165053066508+003	28	1.7003627505264034922510+003	28
27	1.67443961	h42395862909/3+003	28	1.716935954043875346+003	29	1.750361346622266638+003	29
28	1.72208777	h21182/0113+003	29	1.7671482447331522192+003	30	1.81212175035775923910+003	30
29	1.77079391	h15985801532+003	30	1.8201576866502939918+003	31	1.8893287352895537202+003	31
30	1.822961112	h4950113763+003	31	1.87592583049654291794+003	32	1.92875/85695383316425+003	32
31	1.976200272	h14894824+003	32	1.9343610953402981412+003	33	1.99052115143325422510+003	33
32	1.935274661	h3020/15021+003	33	1.995370526403492337+003	34	2.05461165216357584078+003	34
33	1.99/01141	h9198563/42+003	34	2.0588736644705816390+003	35	2.1210215794534827901+003	35
34	2.06050803	h21653901162+003	35	2.1248027940339263045+003	36	2.1897118021336675860+003	36
35	2.126073486	h52850942+003	36	2.1931022290588660986+003	37	2.266655756016000309+003	37
36	2.19423989	h48511666262+003	37	2.2637255370351632916+003	38	2.339321653841640676799619+003	38
37	2.26475287	h2239504+003	38	2.3366333693504096266+003	39	2.409237090187920914+003	39
38	2.337568091	h802015/501+003	39	2.411793338460804573+003	40	2.486622102338921117+003	40
39	2.4126467	h792h51432441+003	40	2.4891779923992313097+003	41	2.56658/57195921159733+003	41

PRBLATE EIGENVALUES H = 60.00

M = 0		M = 1		M = 2	
L	EIGENVALUE	L	EIGENVALUE	L	EIGENVALUE
0	5.92465077600481414096+001	1	6.02553565572130457435+001	2	6.32809950548803592333+001
1	1.7823585600564677438+002	2	1.792599963907798+002	3	1.82338263798+002
2	2.962026720483205746+002	3	2.972458530106396571+002	4	3.037956604344279416+002
3	4.1313242191753578611+002	4	4.1419935668927597258+002	5	4.173915701624707685+002
4	5.29026651805652549+002	5	5.3010463194775955559+002	6	5.3336035588630742269+002
5	6.43843546344771486078+002	6	6.44951889966990861372+002	7	6.48271379112678218+002
6	7.57591059349285915492+002	7	7.587204869345132354+002	8	7.6210938351653997326+002
7	8.70241515471611886232+002	8	8.7139580441211469388+002	9	8.748584298840924054+002
8	9.81786428776501816098+002	9	9.82966061957602709244+002	10	9.8650175996161114265+002
9	1.092188416206532074+003	10	1.0933968442767644753+003	11	1.09702175289356344+003
10	1.204416457530500273+003	11	1.2026253928867245640+003	12	1.206398852625511179+003
11	1.3095358631517516305+003	12	1.3108060669646484966+003	13	1.314616611012648943+003
12	1.4164366428048748537+003	13	1.417272498412916758+003	14	1.4216512920703212728+003
13	1.52211346592546014131+003	14	1.523456988326573664+003	15	1.5274820941750725755+003
14	1.626551473965711105+003	15	1.62794038186591817130+003	16	1.63208587447886729492+003
15	1.72997105285851853555+003	16	1.7311619359434842829+003	17	1.735438055142357306+003
16	1.8316205613731313221+003	17	1.83309408825471281497+003	18	1.837512481063655274+003
17	1.93216454319225015677+003	18	1.9337072952256714502+003	19	1.93828125940016382741+003
18	2.0313813483727991673+003	19	2.0329497525937803454+003	20	2.03714578800012680+003
19	2.1292616490179389770+003	20	2.1308471139149161706+003	21	2.13576050598014594079+003
20	2.225582940105753053+003	21	2.227302154571038187+003	22	2.232447576220833070+003
21	2.32050014144557530503+003	22	2.3222643305032514342+003	23	2.3276704466380849272+003
22	2.4138501113187738013+003	23	2.4157793226638919029+003	24	2.4214780321790617056+003
23	2.5057451802327226504+003	24	2.5077084015194440683+003	25	2.5136438794724695902+003
24	2.595932001339860120+003	25	2.5980277227068563168+003	26	2.604392240242807764+003
25	2.68448677492192820+003	26	2.6866773892189916+003	27	2.69334268767013120154+003
26	2.7712013289200191473+003	27	2.7735903118141334+003	28	2.780711062312201747+003
27	2.8561267671780991220+003	28	2.85866908560382910133+003	29	2.8663492538355334685+003
28	2.9391055724167633098+003	29	2.941852927061192875+003	30	2.9501956615803927459+003
29	3.0200154928530023+003	30	3.02309789188962021887+003	31	3.03218659651339832785+003
30	3.098786033154982806+003	31	3.102191845583076265+003	32	3.1125960635564709504+003
31	3.175161262834564635556+003	32	3.1790429324595256455+003	33	3.1903606710584778342+003
32	3.24901867248140963+003	33	3.2535004686281950902+003	34	3.26645869732411945+003
33	3.319906521235284054+003	34	3.32540205816110003	35	3.330574539939160599+003
34	3.38676430717808745218+003	35	3.394670446021996865+003	36	3.4128266103866720818+003
35	3.45132812944363865+003	36	3.4610882938651002726+003	37	3.483498374421564267+003
36	3.51016405207955+003	37	3.525162272501609958540+003	38	3.55309561004972926+003
37	3.56392585386285508+003	38	3.587710592310572258+003	39	3.62223452529826323239+003
38	3.61485262718851026+003	39	3.65016689166649116157+003	40	3.6929457415970084193+003
39	3.66735637855668547351+003	40	3.7140420616807563975+003	41	3.631442040708017369+003
40	3.724732081588629725+003	41	3.7804944717240794248+003	42	3.83611081734150987182+003
41	3.7876115623631293156+003	42	3.850067421517504+003	43	3.9113893861304840768+003
42	3.8552585385386285508+003	43	3.922860336134839914+003	44	3.98917129044137462+003
43	3.9269571409494888992+003	44	3.9988607096638488840+003	45	4.06955083854916828824+003
44	4.0022124031720713984+003	45	4.077819513779466536+003	46	4.15253620008710908114+003
45	4.080717801383681026+003	46	4.1598176556161560684+003	47	4.2381073434561510453+003
46	4.162261255289n61214+003	47	4.244556502410373897+003	48	4.262293531356588665+003
47	4.24621367600807261551+003	48	4.33200389070390396+003	49	4.41686243131173752434+003
48	4.333944142968645156+003	49	4.42207983351866809230+003	50	4.509665484033255785+003
49	4.4238214668248447258+003			51	4.605503537838370322912+003

PROBLATE EIGENVALUES H = 80.00		H = 0	H = 1	H = 2	
L	EIGENVALUE	EIGENVALUE	EIGENVALUE	FIGENVALUE	
0	7.92476187374038107134*001	1	8.02539888013821575858*001	2	8.32730915088577620158*001
1	2.38238016470159461581*002	2	2.19257375560032401082*002	3	2.423154283954631829*002
2	3.962131353878212261*002	3	3.972446674374407923816*002	4	4.003452381673732718*002
3	5.5316500136287411281*002	4	5.54211911011344114563*002	5	5.575260380574906651*002
4	7.09081227911529147104*002	5	7.10142779568452975289*002	6	7.1332733674235171153*002
5	8.639518852387607022*002	6	8.65028621668074552901*002	7	8.6825809148191345556*002
6	1.01776573560458405474*003	7	1.01885840299112143746*003	8	1.0212363608895720529*003
7	1.1705141334138576*003	8	1.17162071501360502144*003	9	1.174948455526291263*003
8	1.322170766324906233*003	9	1.3233037027728780*003	10	1.3268348133951483162*003
9	1.47275010503060291423*003	10	1.47389508816510615276*003	11	1.4773293155254651654*003
10	1.62221131423583871489*003	11	1.623382117198551450*003	12	1.626873380384345AA*003
11	1.7705678512441833914*003	12	1.77175153100010139*003	13	1.77530261495997519487*003
12	1.9177848578554640665*003	13	1.91899551579432973*003	14	1.922603441634694149*003
13	2.063850947558133553*003	14	2.065081822678985525*003	15	2.068761745231344A1364*003
14	2.2087634395713878853*003	15	2.210013355616280231607*003	16	2.21376281107197520092*003
15	2.352491726173102619*003	16	2.35376855410502322472*003	17	2.3575913101912311364*003
16	2.4950386128377379*042*003	17	2.49631096306309630003	18	2.500521246281439695131*003
17	2.636353052642238213*003	18	2.6376038285597968453*003	19	2.64166589299217663*003
18	2.776452475764081813*003	19	2.7778089479525375038*003	20	2.7818777499071A1626*003
19	2.915300478171077374*003	20	2.91668765519116545826*003	21	2.92084575959396674595*003
20	3.05288635267729181*003	21	3.05430802225473427471*003	22	3.05896905064466566196*003
21	3.18911530593856631*003	22	3.19062588905794430925*003	23	3.19498915051988271349*003
22	3.32415882776148388984*003	23	3.3256427946206279728*003	24	3.3301715445037546283*003
23	3.45779839065241597*003	24	3.45932781505972824560*003	25	3.4639219310900710265*003
24	3.590088746686107257*003	25	3.59165653038385395323*003	26	3.5963378740313127*003
25	3.72098423184434669*003	26	3.7226029330364007948*003	27	3.72746306431739541682*003
26	3.8504690635867522691*003	27	3.85213955775102428253*003	28	3.85714A534928369269*003
27	3.9785126391552121963*003	28	3.9802370202604003	29	3.9854071864492310160*003
28	4.1050810722699707164*003	29	4.1068400101819064003	30	4.1220301901075096171*003
29	4.230140525139075665*003	30	4.231986919192964746799*003	31	4.2375232390837875877*003
30	4.35365287321245699*003	31	4.3555649705518951161*003	32	4.3613152383110404349*003
31	4.475574757120214304*003	32	4.4775735221636843140*003	33	4.4835492024665081549*003
32	4.5958794113938545719*003	33	4.597956335143032866003	34	4.60435641080606610*003
33	4.71449135418564239*003	34	4.716672501349382422*003	35	4.72318547053929637865*003
34	4.831395350559740761*003	35	4.8336722473448524913*003	36	4.8405015742352560587*003
35	4.946503799783402275*003	36	4.9489011106936258220*003	37	4.9568662910163373595*003
36	5.05976383630883102515*003	37	5.062289912790266889*003	38	5.06988R7042180606610*003
37	5.171106414850032339*003	38	5.1737993993595797950*003	39	5.1818517622118379820*003
38	5.280452699580640139*003	39	5.28332821515401390*003	40	5.291915412485280744*003
39	5.38713349495230254*003	40	5.39080228578240166*003	41	5.400148302539547643*003
40	5.49278398839312829*003	41	5.49612757088045866376*003	42	5.5060810416340974151*003
41	5.5955402879721297*003	42	5.599196955961892467*003	43	5.610041954A60879833*003
42	5.695851161118006383*003	43	5.69988765186256074457*003	44	5.711824888A955465184*003
43	5.793528859323830025*003	44	5.7980579350764126539*003	45	5.8113620474703147166*003
44	5.888352736625659633*003	45	5.893545162298366979*003	46	5.90860163949587n3481*003
45	5.980058948449876232*003	46	5.9861676590082367761*003	47	6.00352921548707910271*003
46	6.0682078995197668233*003	47	6.07574213817582026532*003	48	6.08620534865656A0978*003
47	6.15221291230844105*003	48	6.1621436760229114168*003	49	6.18682335579011264927*003
48	6.2316170693046735123*003	49	6.245453125469733085*003	50	6.2577743363302894611*003
49	6.3041521804417748623*003	50	6.3262035780182949140*003	51	6.3637056821617938393*003

PROLATE EIGENVALUES M = 100.00

M = 0		M = 1		M = 2	
EIGENVALUE		EIGENVALUE		EIGENVALUE	
L	0	9.92461010699632959503•001	1.00295377613414938377•002	1.03268402532558038076•002	1.03230199647980656075•002
1	2.99205666559176331377•002	2.99205666559176331377•002	2.99205666559176331377•002	2.99205666559176331377•002	2.99205666559176331377•002
2	4.9622122118867610172•002	4.972474028378866948•002	5.0032528076759•002	5.0032528076759•002	5.0032528076759•002
3	6.93102497233445907287•002	6.94210466550492567262•002	6.9733044105912754•002	6.9733044105912754•002	6.9733044105912754•002
4	8.8911617856239710447•002	8.9016492650385016607•002	8.93309476073899344699•002	8.93309476073899344699•002	8.93309476073899344699•002
5	1.084013940933330218434•003	1.08507952780418103•003	1.0865239664630206203•003	1.0865239664630206203•003	1.0865239664630206203•003
6	1.277867322453949527•003	1.27889333594848•003	1.2821556061778510964•003	1.2821556061778510964•003	1.2821556061778510964•003
7	1.470667262068262253•003	1.471751049394255282•003	1.475056904123628866•003	1.475056904123628866•003	1.475056904123628866•003
8	1.6620949904903358412•003	1.6635253032084601873•003	1.66679510576202847051•003	1.66679510576202847051•003	1.66679510576202847051•003
9	1.853013102291021593•003	1.854120507600975996•003	1.855414016196813516•003	1.855414016196813516•003	1.855414016196813516•003
10	2.04225606394008437395•003	2.043706760003039539•003	2.0437152076735201134•003	2.0437152076735201134•003	2.0437152076735201134•003
11	2.2311499706566608032•003	2.2322817628382094491•003	2.2359236742968118032•003	2.2359236742968118032•003	2.2359236742968118032•003
12	2.41854267127147349749•003	2.4196080032541653770•003	2.4231591133118655•64•003	2.4231591133118655•64•003	2.4231591133118655•64•003
13	2.604623660269927464633•003	2.605933170300800921•003	2.609502194542001024•003	2.609502194542001024•003	2.609502194542001024•003
14	2.789982108659594706489•003	2.791167315177580071•003	2.794164689290005•003	2.794164689290005•003	2.794164689290005•003
15	2.9700701881830105389•003	2.97520911435050812733•003	2.9788166675201666882•003	2.9788166675201666882•003	2.9788166675201666882•003
16	3.15688663243806356645•003	3.15910564887399149313•003	3.1617662066740101925•003	3.1617662066740101925•003	3.1617662066740101925•003
17	3.3366090961291010193•003	3.33994719355368817269•003	3.34356130946930242979•003	3.34356130946930242979•003	3.34356130946930242979•003
18	3.5191620617134214133•003	3.5204109983729495082•003	3.52461901220395788105•003	3.52461901220395788105•003	3.52461901220395788105•003
19	3.69653274197621291423•003	3.6996694844740018534•003	3.70361897564136125306•003	3.70361897564136125306•003	3.70361897564136125306•003
20	3.876708844054932104•003	3.878003436814500429•003	3.8818975657613265520•003	3.8818975657613265520•003	3.8818975657613265520•003
21	4.0536737427014950325•003	4.05449928012330068305•003	4.058946738640286798•003	4.058946738640286798•003	4.058946738640286798•003
22	4.229160458087891407•003	4.2307977161398160576•003	4.23478236874392685334•003	4.23478236874392685334•003	4.23478236874392685334•003
23	4.403919841824669349•003	4.40523396436164390•003	4.4098105997216845210•003	4.4098105997216845210•003	4.4098105997216845210•003
24	4.57770707298496679374•003	4.7785032330332615356•003	4.8027302130730485766•003	4.8027302130730485766•003	4.8027302130730485766•003
25	4.74915031161244676241•003	4.7505666967679107228•003	4.7546153494926262857•003	4.7546153494926262857•003	4.7546153494926262857•003
26	4.9194394055733566417•003	4.9212672293656392066•003	4.9256149209398337081•003	4.9256149209398337081•003	4.9256149209398337081•003
27	5.0822334908974372179•003	5.0970703598144070923•003	5.0987429334951245488•003	5.0987429334951245488•003	5.0987429334951245488•003
28	5.253097128510007532•003	5.25880415346561225966•003	5.2633116378355545217•003	5.2633116378355545217•003	5.2633116378355545217•003
29	5.4249615173510085•003	5.425932270550•003	5.43016863535551726•003	5.43016863535551726•003	5.43016863535551726•003
30	5.58399027572063•397•003	5.5909986686664284552•003	5.595669799674559046•003	5.595669799674559046•003	5.595669799674559046•003
31	5.75337298333058831•003	5.754971358813035583•003	5.7597746647191941370•003	5.7597746647191941370•003	5.7597746647191941370•003
32	5.919504670672575837•003	5.919504670672575837•003	5.9225224933495171061•003	5.9225224933495171061•003	5.9225224933495171061•003
33	6.071004231307200935•003	6.071004231307200935•003	6.08384208525891593384•003	6.08384208525891593384•003	6.08384208525891593384•003
34	6.238057792104881227229•003	6.238057792104881227229•003	6.24371483242566007368•003	6.24371483242566007368•003	6.24371483242566007368•003
35	6.439674779194308999•003	6.439674779194308999•003	6.40221210591519240995•003	6.40221210591519240995•003	6.40221210591519240995•003
36	6.55903702217405367•16•003	6.55903702217405367•16•003	6.714331345475591779•003	6.714331345475591779•003	6.714331345475591779•003
37	6.655359984716667149258•003	6.655359984716667149258•003	6.6862868981753325380•003	6.6862868981753325380•003	6.6862868981753325380•003
38	6.7057745662198874180•003	6.7057745662198874180•003	7.0205494400214207520•003	7.0205494400214207520•003	7.0205494400214207520•003
39	6.71202072801870457519•003	6.71202072801870457519•003	7.132021426310611102246•003	7.132021426310611102246•003	7.132021426310611102246•003

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13. ABSTRACT The wave equation in prolate spheroidal coordinates was separated into radial and angle functions. The differential equation satisfied by the angle functions was written in the form of an eigenvalue problem, that is, as a linear operator operating on eigenfunctions to yield the same eigenfunctions multiplied by corresponding eigenvalues. The eigenvalues were numerically calculated by use of Galerkin's method. This method reduces to the evaluation of the characteristic roots of a large matrix. An 80 by 80 matrix is chosen and a detailed calculation on a high-speed computer leads to a tabulation. The table of prolate eigenvalues published here has the range $m = 0, 1, 2$; $\ell = m (1) m + 49$; $h = 0.1 (0.1) 0.9, 1.0 (0.2) 8.0, 10.0, 20.0 (20.0) 100.0$. The precision is 21 significant figures.		

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